

# Leistungsverstärker *Power Amplifiers*

9 kHz ... 40 GHz  
1 mW ... 20 kW



**BONN Elektronik**  
ENGINEERING EXCELLENCE FOR 30 YEARS

## Wir bieten Leistung nach Maß.

BONN Elektronik entwickelt und produziert breitbandige Hochfrequenz-Leistungsverstärker und -systeme. Seit mehr als 30 Jahren überzeugen wir weltweit die Anwender durch Leistung, Individualität und Qualität unserer Produkte mit kundenspezifischen Lösungen.

### Modular

Unsere Kernkompetenz besteht darin, dass unserem gesamten Produktpotfolio ein modulares Baukastensystem zugrunde liegt. Darauf basieren kundenspezifische, individuell auf die jeweiligen Anforderungen angepasste Konfigurationen von Leistungsverstärkersystemen. Und das ohne jegliche weitere Entwicklungskosten!

### Halbleiter

Der abgedeckte Frequenzbereich beginnt bei 9 kHz und reicht bis 40 GHz. Während im unteren Frequenzbereich Ausgangsleistungen bis zu 20 kW verfügbar sind, werden von 26,5 - 40 GHz immerhin noch 40 W geboten. Dabei kommen unterschiedliche Technologien zum Einsatz. Die Mehrzahl der Verstärker wird in Halbleitertechnologie realisiert.

### Hybrid

Ergänzend dazu werden am unteren Ende des Frequenzbereichs für sehr hohe Ausgangsleistungen so genannte Röhren-Kettenverstärker eingesetzt. Diese zeichnen sich insbesondere durch Unempfindlichkeit gegen die in diesem Frequenzbereich oft schlecht angepassten Antennen aus.

### TWT

Im Frequenzbereich oberhalb von 1 GHz verringern sich die mit Halbleiter-Technologie breitbandig erzielbaren Ausgangsleistungen signifikant. Deswegen werden bei Frequenzen über 1 GHz für höhere Ausgangsleistungen Wanderfeldröhrenverstärker eingesetzt. Bis 18 GHz lassen sich damit Verstärkerausgangsleistungen von 1 kW continuous wave (cw) oder 8 kW Puls realisieren.



### BONN Elektronik GmbH

- 1975** Firmengründung für den Vertrieb von HF-Komponenten
- 1982** Beginn der Entwicklung & Produktion von HF-Leistungsverstärkern
- 1988** Fokus auf HF-Leistungsverstärker
- 1991** Gründung der BONN Hungary Electronics Ltd.
- 1994** Bau des neuen Firmengebäudes und Umzug nach Ottobrunn (bei München)
- 2000** Kooperation mit Rohde&Schwarz

#### Geschäftsführung:

Robert Bonn [Project Management]  
Gerald Puchbauer [Sales & Marketing]

# Company Profile

## We provide the power you need.

BONN Elektronik designs and produces broadband RF power amplifiers and RF power amplifier systems. For more than 30 years performance, individual solutions and quality of our instruments inspire experts and users worldwide.

### Modular

The core competence of BONN Elektronik products is based on a modular platform concept. This allows to provide flexible customized power amplifier solutions perfectly addressing the customers' requirements without involving any additional non recurring engineering cost!

### BONN Elektronik GmbH

- 1975 Foundation of the company for distribution of RF components
  - 1982 Beginning of design & manufacturing of RF Power Amplifiers
  - 1988 Focus on RF Power Amplifiers
  - 1991 Foundation of BONN Hungary Electronics Ltd.
  - 1994 New company building and moving to Ottobrunn (near Munich)
  - 2000 Cooperation with Rohde&Schwarz
- Managing Directors:**  
Robert Bonn [Project Management]  
Gerald Puchbauer [Sales & Marketing]

### Solid State

The covered frequencies start at 9 kHz and range up to 40 GHz. At the low end of the frequency range up to 20 kW of output power are available. From 26.5 to 40 GHz still 40 W of broadband power are provided. This wide range is realized in different technologies where most of the amplifiers are based on solid state technology.



### Hybrid

At low frequencies with corresponding very high power levels solid state amplifiers are supplemented by so-called distributed tube amplifiers. These distributed amplifiers are well known for high tolerance against poor VSWR of antennas available for low frequencies.

### TWT

Broadband power available in solid state technology declines rapidly above 1 GHz. Therefore, travelling wave tubes are used for higher output power levels. Up to 18 GHz output power levels of 1 kW cw and 8 kW pulsed are provided.



# Anwendungen



## Mobil

Unsere Leistungsverstärker-Systemlösungen eignen sich wahlweise für den stationären oder auch mobilen Einsatz. Ein mobiles System kann beispielsweise in der Realisierung einer verhältnismäßig einfachen Integration in ein 19"-Rack bestehen. Aber auch in hochkomplexen Sondereinbauten in Fahrzeugen, Schiffen oder Flugzeugen.

## Kompakt

Alle diese Lösungen zeichnen sich durch höchstmögliche Kompaktheit und Robustheit aus. Nicht selten benötigen vergleichbare Systemlösungen von anderen Herstellern das doppelte Volumen gegenüber den von BONN Elektronik optimierten Lösungen.

## Kühlung

Eine weitere Kernkompetenz liegt in der wahlfreien Verfügbarkeit von Luft- oder Flüssigkühlung für fast alle Leistungsverstärker. Bei großen Ausgangsleistungen oder stark begrenztem Einbauraum bietet die Flüssigkühlung den höchsten Kundennutzen. Neben der Reduzierung der Baugröße der Leistungsverstärker zählen darüber hinaus die Reduzierung der Wärmeabstrahlung im Betriebsraum, die geringe Lärmentwicklung sowie die Vermeidung von Zugluft zu den wesentlichen Vorteilen der Flüssigkühlung.

Die hohe Flexibilität der Systemkonfigu-

## Flexibilität

ration setzt den möglichen Applikationen kaum Grenzen. Die Anwendungsgebiete reichen von kleinen Laboraufbauten zur Überprüfung von HF-Komponenten bis hin zu Systemen für mobile Kommunikation, Telemetrie und wissenschaftlichen Untersuchungen.

## Systeme

Weitere interessante Einsatzgebiete liegen in der Elektromagnetischen Verträglichkeit (EMV) mit dem Design von Störfestigkeits-Testsystemen für die Überprüfung von Komponenten bis hin zu kompletten Fahr- und Flugzeugen. Ebenso bieten wir unser Spezialwissen für die Simulation der Beeinflussung durch Radarsysteme und Rundfunksender mit maßgeschneiderten Kundenlösungen. Optional können alle Systeme auch für den militärischen Einsatz konfiguriert und qualifiziert werden.

**BONN Elektronik bietet für jede Applikation die passende Systemlösung mit Leistung nach Maß.**

**BONN Elektronik Verstärker und Verstärkersysteme sind weltweit im Einsatz in Anwendungsgebieten wie:**

- EMI / EMS
- Automobil- und Flugzeugindustrie
- Kommunikation und Telemetrie
- Prüflabors
- Forschung und Entwicklung
- Plasmaforschung
- Teilchenbeschleuniger
- Störsender (stationär oder mobil)
- Störsender für Drohnen
- Radar
- Militärische Steuersender



# Applications

## Mobile

Our power amplifier system solutions are perfectly suited for use in stationary and mobile applications. Mobile systems may start at a rather simple integration into a 19" rack. Much more challenging are highly complex special design-ins for all kinds of vehicles, ships or aircrafts.

## Compact

All these solutions feature a most compact and robust system design. Many times competitive system solutions require twice the volume of optimized systems from BONN Elektronik.

## Cooling

An additional core competence is the capability of alternatively offering either air cooling or liquid cooling for almost all power amplifiers. Our biggest advantage for the customer is visible at high output power levels or if only limited space is available for integration. Besides the significant reduction of the system size additional key advantages are reduced thermal radiation in the operating room, minimal noise and elimination of draft.

## Flexibility

Possible applications for these highly flexible system configurations are almost unlimited. Addressable applications are ranging from small lab installations for testing RF components up to large systems for mobile communication, telemetry and scientific analysis.

## Systems

Additional typical applications are radiation systems for testing electromagnetic interference (EMI) and susceptibility (EMS) of cars and car components as well as aircraft components or complete aircrafts. Our special know-how also allows designing complex customized systems for simulating effects of radar systems or high power broadcast transmitters. Optionally all systems can be customized for military applications with full qualification.

**BONN Elektronik provides the power you need for many applications.**



**BONN Elektronik amplifiers and amplifier systems are used worldwide in applications such as:**

- EMI / EMS
- Automotive- und Aircraft Engineering
- Communication and Telemetry
- Test Laboratories
- Research and Development
- Plasma Research
- Particle Accelerator
- Jammer (fixed or mobile)
- Airborne Jammer
- Radar
- Military Control Transmitter

**Flexible Organisation  
für modulare Produkte**

**Flexible Structure  
for modular products**

### Technical Management

IT Management  
Product Marketing  
Technical Investments  
HR Development

### Quality Management

Design  
Production  
Inspection

## **BONN Elektronik GmbH**

### **RF Groups**

BSA / BTA Series Amplifiers  
BLWA Series Amplifiers  
BLMA / TWAL Microwave Amplifiers  
BPA / TWAP Pulsed Amplifiers  
Cellular Products  
EMI Preamplifiers

### **Electronics Group**

Power supplies and Controls

### **Documentation Group**

Mechanical Design and Documentation

### **Assembly Group**

Electronics Production

### **Production Group BWF**

Mechanical Production

### **Sales & Marketing**

Sales Internal  
Sales External  
Sales Representatives  
Order Processing

### **Organization Management**

Product Modularization  
Controlling  
Purchasing  
Material Supply

### **Administration Management**

Accounting  
Financing  
Bookkeeping  
HR Administration

# Produkte und Optionen

**Wir haben auch für Ihre Anwendung die passende Systemlösung.**

## Optionen

Zur Ergänzung unserer Leistungsverstärker stehen zahlreiche Optionen zur Verfügung:

- Richtkoppler (intern und extern)
- Leistungs-Combiner
- Dämpfungsglieder
- Filter
- Leistungs-Schaltfelder
- Leistungs PIN-Dioden Schalter
- Hochleistungs-Netzteile

## Komponenten

Zusätzlich zu unserem umfangreichen Programm an Leistungsverstärkern bieten wir auch eine komplette Palette verschiedener HF-Komponenten:

- Oszillatoren, DROs, PLOs
- Frequenz-Synthesizer
- Rauscharme Vorverstärker
- Mobilfunk
  - Systemkomponenten
  - Repeater
  - Zirkulatoren und Isolatoren
- Radar Front-Ends
- Sende- und Empfangsumsetzer
- Empfänger und Sender
- Mikrowellen-Mischer
- Antennen
- Hohlleiter-Komponenten

## HF-Leistungsverstärker

### BSA Series

Halbleiterverstärker / *Solid State Amplifiers*  
9 kHz ... 1000 MHz  
1 ... 1 kW

### BLWA Series

Halbleiterverstärker / *Solid State Amplifiers*  
1 ... 1000 (4000) MHz  
1 W ... 20 kW

### BLMA Series

Halbleiterverstärker / *Solid State Amplifiers*  
100 MHz ... 40 GHz  
0.1 ... 850 W

## EMI-Vorverstärker / EMI Preamplifiers

Verstärker & Antennen / *Amplifiers & Antennas*  
0.1 ... 40 GHz  
18 ... 50 dB Gain



# *Products and Options*

**We are designing suitable system solutions for your application.**

## **RF Power Amplifiers**

### **BTA Series**

Hybridverstärker / Hybrid Amplifiers

9 kHz ... 220 MHz

250 W ... 10 kW

### **Mobilfunkbänder / Cellular Bands**

Halbleiterverstärker / Solid State Amplifiers

890 ... 2500 MHz

10 ... 200 W

### **TWAL Series**

TWT-Verstärker / TWT Amplifiers

1 GHz ... 40 GHz

20 W ... 1 kW

### **BPA / TWAP Series**

Pulsverstärker / Pulsed Amplifiers

300 MHz ... 18 GHz

25 W ... 8 kW

## *Options*

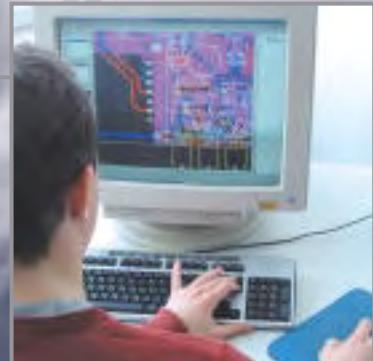
*For completion of our line of power amplifiers we are offering various options too:*

- Directional Couplers  
(internal and external)
- Power Combiners
- Attenuators
- Filters
- Power Switch Matrices
- High Power PIN-Diode Switches
- High Performance Power Supplies

## *Components*

*Besides our complete line of power amplifiers we manufacture a wide spectrum of numerous RF components:*

- Oscillators, DROs, PLOs
- Frequency Synthesizers
- Low Noise Amplifiers
- Cellular
  - System components
  - Repeaters
  - Circulators and isolators
- Radar Front-Ends
- Up and Down Converters
- Receivers & Transmitters
- Microwave Mixers
- Antennas
- Waveguide Components



# Produktmerkmale



## Systemkonzept

Hochwertige, kundenspezifische

### Produkte zu moderaten Preisen

- Modulares Baukastensystem
- Kompakter und konsequent modularer Aufbau ermöglicht nahezu grenzenlose Flexibilität
- Integrales Systemdesign
  - HF-Design
  - Mechanisches Design
  - Effiziente Kühlung
- Flexible Fernsteuerung
  - TTL, IEEE 488.2, RS 232C, USB und Ethernet
- Systemdesign basiert auf MIL-Standards und strengen Sicherheitsrichtlinien (VDE, CE...)

## HF

### Zuverlässiger Dauerbetrieb ohne Einschränkungen

- Lineare Ausgangsleistung (Halbleiterverstärker)  
Nominale Ausgangsleistung = -1 dB Kompression
- Alle Systemparameter sind bei Nominalleistung spezifiziert (Harmonische, Nebenwellen, Leistungsaufnahme etc.)
- Isolation jedes einzelnen HF Transistors für optimalen Schutz bei extremer Fehlanpassung

## Stromversorgung

### Perfekter Schutz der Endstufen-Transistoren

- Fehlertolerantes Konzept ermöglicht Systembetrieb mit reduzierter Ausgangsleistung
- Individueller Schutz vor extremer Fehlanpassung für jeden einzelnen Endstufen-Transistor durch separate Strom- und Spannungsbegrenzung
- Hoher Wirkungsgrad zur Optimierung der Leistungsaufnahme

## Mechanik

Kompakte und robuste mechanische

### Konstruktion

- Alle HF-Module sind aus dem Vollen gefräst für perfekte
  - HF-Schirmung,
  - Kühlung und
  - soliden HF-Massekontakt
- Massive Grundplatten  
Alle thermischen Quellen (Transistoren und Lastwiderstände) sind direkt auf massive Grundplatten aufgelötet
- Alle Metallteile sind elektrisch leitfähig passiviert
  - Hervorragende Langzeitstabilität
  - Optimale System-Masseverbindung

## Kühlung

### Optimale Systemkühlung

- Standard Luftkühlung  
Spezielle Hochleistungs-Kühlkörper für kompakten Systemaufbau
- Optionale Flüssigkühlung  
Firmeneigene Spezialkühlkörper mit nur 22 mm Bauhöhe!
- Externe Rückkühler mit Konvektionskühlung für +50°C
  - Keine hohe Belastung für die Raumklimaanlagen
  - Wesentlich geringerer Leistungsbedarf
  - Kompaktere Abmessungen gegenüber Kompressorkühlanlagen

## Vorteile

### “Leistung nach Maß”

- Kundenspezifische Systemlösungen mit unübertroffener Zuverlässigkeit und flexibler Anpassung an die Kundenanforderungen
- Qualitativ hochwertige aber preisgünstige Systemlösungen
- Optimierung der Lebensdauerkosten (TCO)  
Eventuell höherer Kaufpreis wird kompensiert durch minimale Servicekosten

# Product Features

## System Concept

*High quality customized products at an economic price level*

- Modular „construction system“
- Compact and modular design allows almost unlimited flexibility
- Integral overall system design
  - RF design
  - Mechanical design
  - Efficient cooling
- Flexible remote control  
TTL, IEEE 488.2, RS 232C, USB and Ethernet
- MIL-Standard based system design in correspondence with stringent instrument safety regulations (VDE, CE...)

## RF

*Reliable continuous operation without degradation*

- Linear RF Power (solid state amplifiers)  
Nominal Output Power = 1 dB compression
- System parameters specified at rated output power (harmonic distortion, spurious, power consumption etc.)
- Isolation of all individual RF transistors for optimum protection against extreme mismatch

## Power Supply

*Perfect protection of amplifier stages*

- Fault tolerant concept  
Allows operation with degraded performance
- Individual power drains for all output transistors with separate current and voltage limiters to protect the output transistors against extreme mismatch
- Enhanced efficiency  
for optimum use of source power



## Mechanics

*Compact and rugged mechanical design*

- All RF modules are milled from solid for perfect
  - RF shielding,
  - heat dissipation and
  - RF grounding
- Massive base plates  
Thermal sources (transistors and load resistors) are directly soldered onto massive base plates
- All metal parts protected by surface passivation
  - Excellent long term stability
  - Perfect system grounding



## Cooling

*Optimum system cooling*

- Standard air cooling  
Special high efficiency heat sinks for compact system layout
- Optional liquid cooling  
Proprietary design of ultra compact heat sinks with 22 mm height only!
- External Heat Exchangers with convection cooling up to +50°C
  - No high capacity required for conventional air condition
  - Less power consumption
  - Compact sized heat exchangers compared to compression type heat exchangers

## Advantage

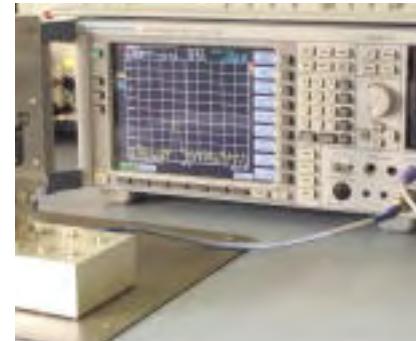
*The Power you need*

- Customized amplifier solutions with unsurpassed reliability and flexible adaptation to the customers' requirements
- High quality but cost effective solutions
- Optimizing the Total Cost of Ownership (TCO)  
*Possibly higher purchasing price will be compensated by minimizing of the service cost*



## BONN Ungarn

Zur Erweiterung unseres Produktprogramms wurde 1991 die BONN Hungary Electronics Ltd. (BHE) für die Forschung und Entwicklung im Mikrowellen- und Telekommunikationsbereich gegründet. BHE beschäftigt hoch qualifizierte Mikrowellen-Spezialisten, die ihre Erfahrung in der Industrie und in Forschungsgruppen für Militär und Raumfahrt erworben haben. Viele verbrachten dazu einige Jahre als Entwicklungsingenieure in USA, Japan oder Deutschland. Die Erfolge in der Forschung und Entwicklung führten sehr bald zu einer Ausweitung der Aktivitäten. Heute ist die Firma mit modernster EDA Simulations-Software sowie elektronischen Test- und Messgeräten ausgerüstet. Heute entwickelt und produziert BHE hochwertige HF-Komponenten und -systeme für zahlreiche namhafte Firmen in Europa, USA und Asien.



### Messgeräte

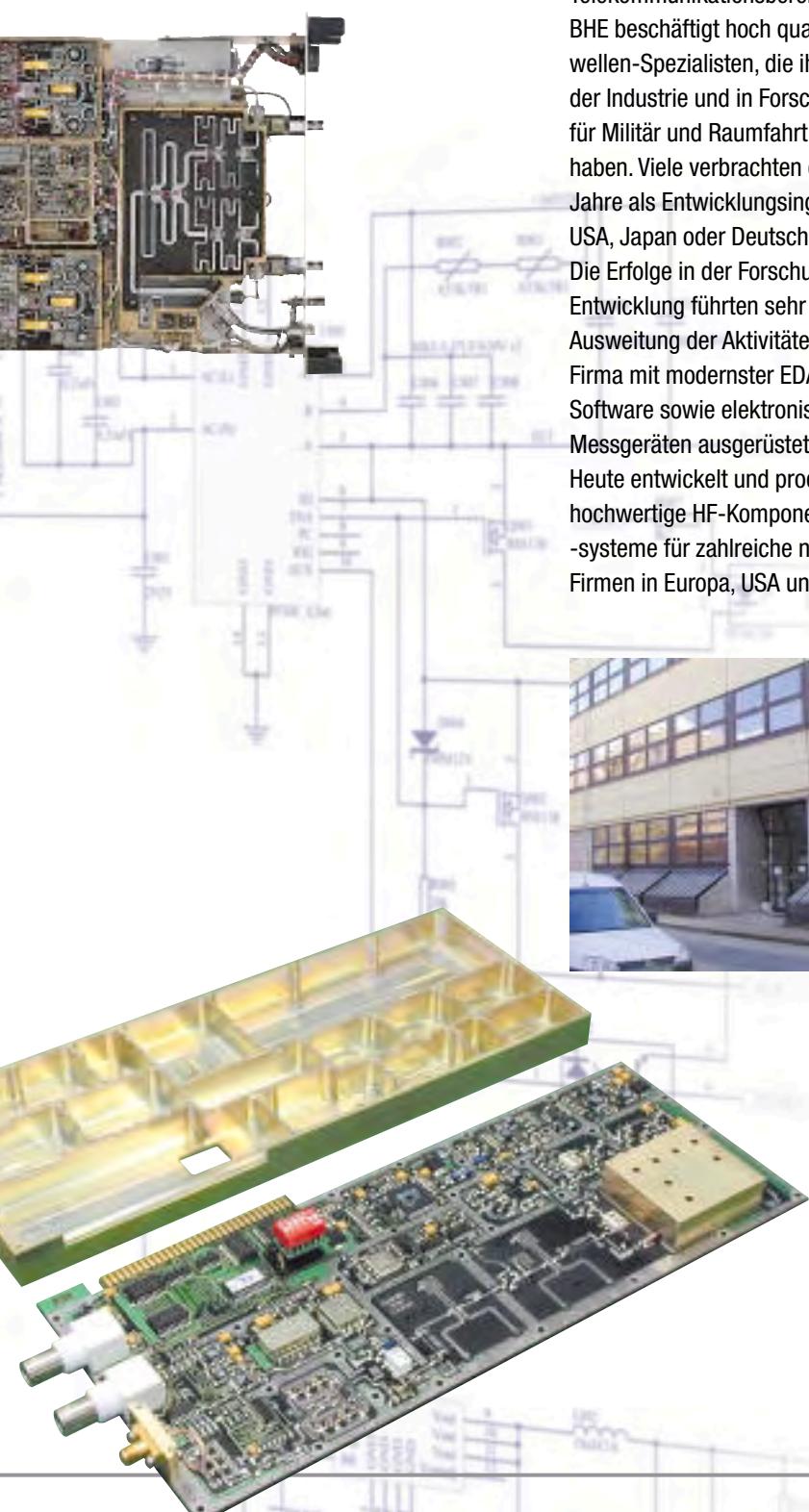
- Vektor-Netzwerkanalysatoren bis 20 GHz
- Spektrumsanalysatoren bis 40 GHz
- Mikrowellen-Leistungsmesser bis 40 GHz
- Rauschmessplätze für nur -178 dBc/Hz Grundrauschen
- Intermodulations-Messplatz mit 170 dB (!) Dynamikbereich

### Umwelt

- PC-gesteuertes Schock- & Vibrations-Testsystem
- Klimakammer für einen Bereich von -70 bis +180°C inklusive Feuchtigkeit
- GTEM-Zelle für Störemissions- und Störfestigkeits-Messungen

### Hi-Rel

Die hochempfindlichen Produkte für Luft- und Raumfahrt werden in einem eigenen Antistatik-Reinraum aufgebaut. In der firmeneigenen Mechanik- Abteilung werden mit erfahrenem Personal alle mechanischen Komponenten auf modernsten CNC-Werkzeugmaschinen hergestellt.





## BONN Hungary

To expand our product line, BONN Hungary Electronics Ltd. (BHE) was founded in 1991 for being an R&D company in the field of microwave telecommunications. BHE employs highly skilled microwave experts, who gained their experience in industrial, military and space research groups at other companies. Many of them spent years in USA, Japan and Germany as development engineers. The success of BHE in microwave research and development led soon to an extension of our activities. The company is equipped with state-of-the-art microwave EDA software for simulation purposes and uses modern electronic test and measuring equipment. Today BHE designs and produces high quality RF components and systems for well known companies in Europe, USA and Asia.



### Measurement

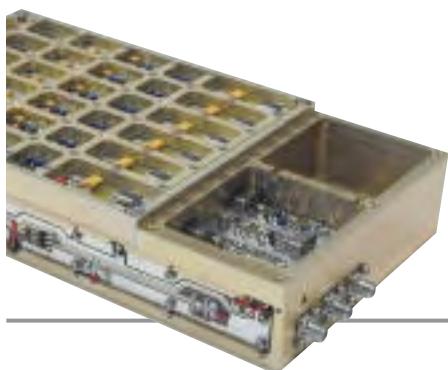
- Vector network analysers up to 20 GHz
- Spectrum analysers up to 40 GHz
- Microwave power meters up to 40 GHz
- Phase Noise Test Equipment down to -178 dBc/Hz noise floor
- Intermodulation test setup with 170 dB (!) dynamic range

### Environmental

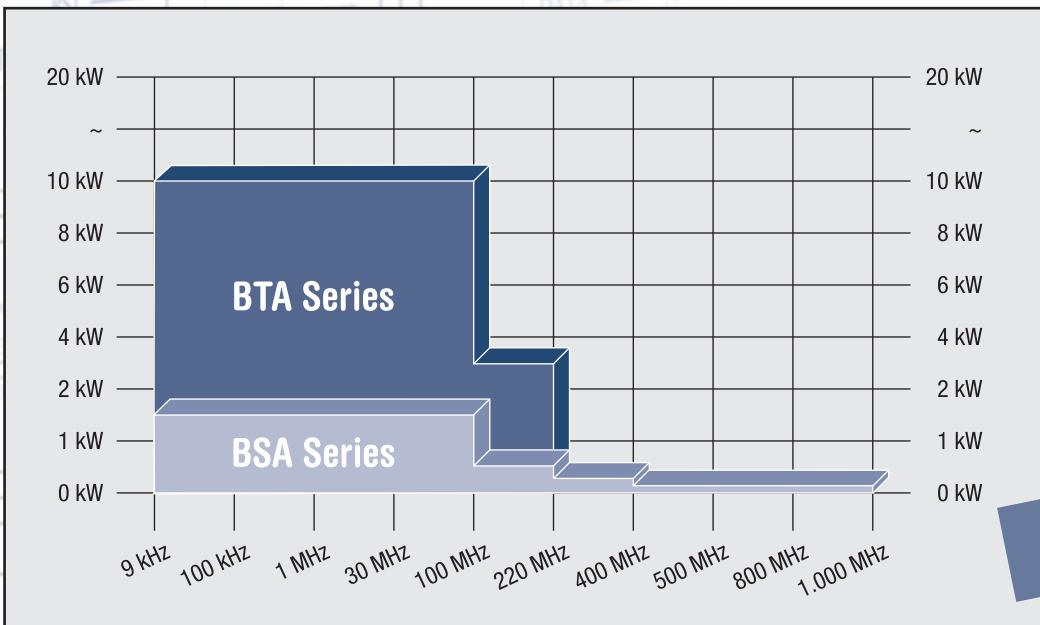
- PC controlled shock & vibration test system
- Climate chamber covering -70° to +180°C plus humidity
- GTEM cell system for EMI / EMS measurements

### Hi-Rel

Sensitive high reliability products are assembled in a fully antistatic clean room. In the machine shop, manufacturing of components is performed by skilled personnel on most modern CNC milling machines.



# RF Power Amplifier Selection Charts

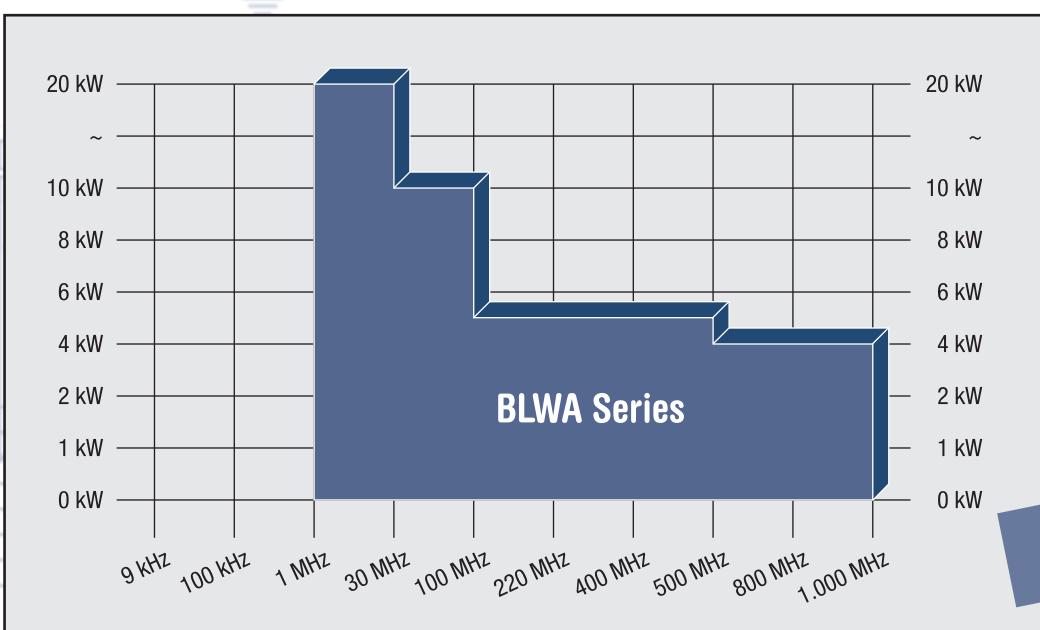


**BSA Series**  
Solid State Amplifiers  
9 kHz ... 1000 MHz  
1 W ... 1.5 kW

Page 4

**BTA Series**  
Hybrid Amplifiers  
9 kHz ... 220 MHz  
1000 W ... 10 kW

Page 6

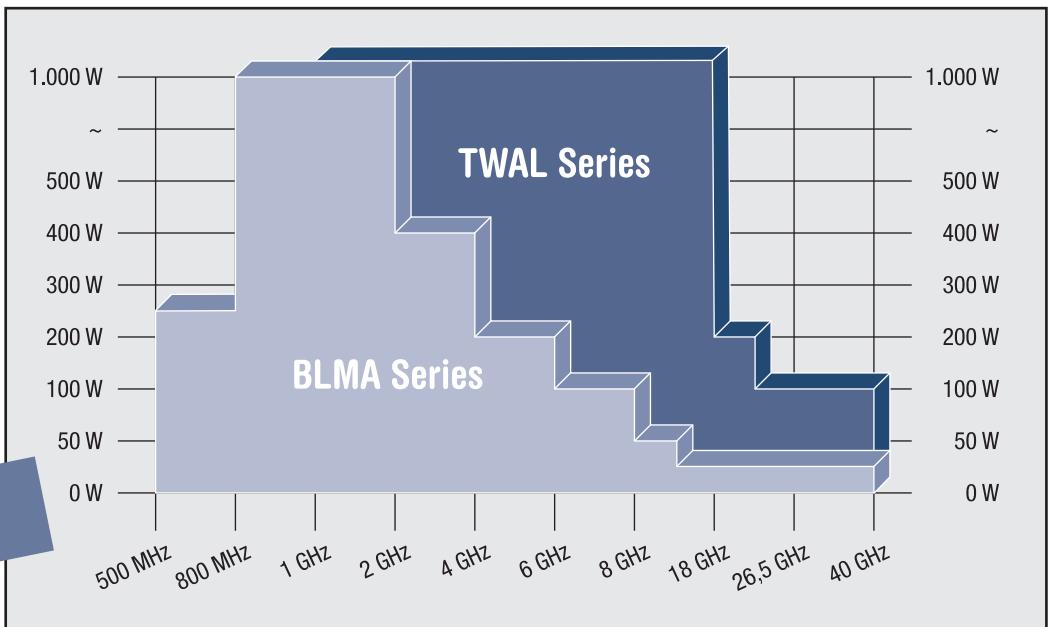


**BLWA Series**  
Solid State Amplifiers  
1 MHz ... 1000 (4000) MHz  
1 W ... 20 kW

Page 6

**Cellular Bands**  
Solid State Amplifiers  
800 ... 2500 MHz  
10 W ... 200 W

Page 12



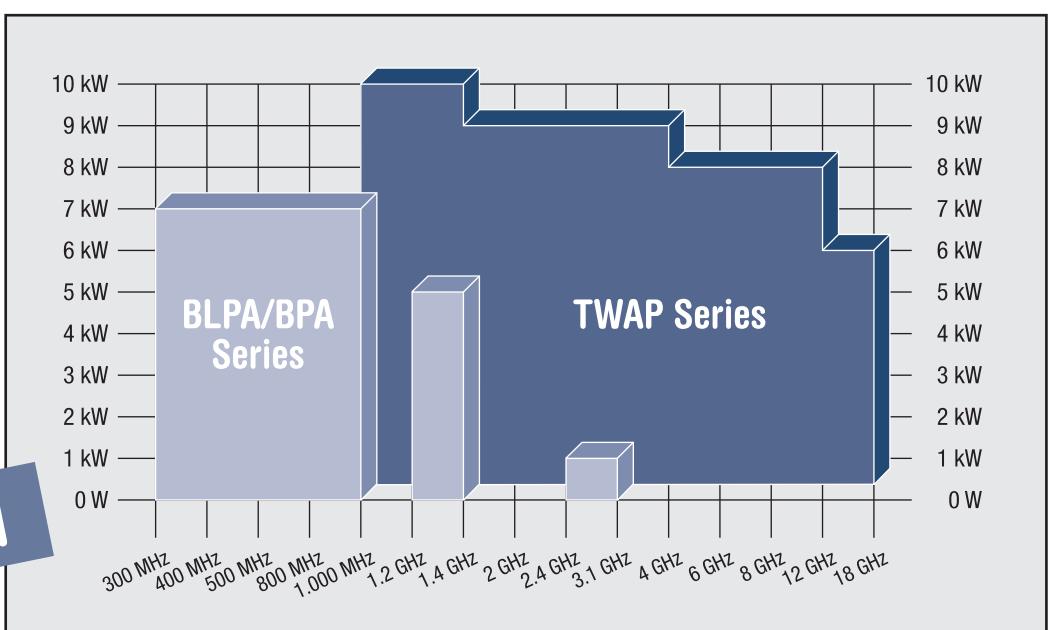
GHz

**BLMA Series**  
Solid State Amplifiers  
**100 MHz ... 40 GHz**  
**0.1 W ... 1 kW**

Page 13

**TWAL Series**  
TWT Amplifiers  
**1 GHz ... 40 GHz**  
**20 W ... 1 kW**

Page 19



Pulsed

**EMI Preamplifiers**  
Amplifiers + Antennas  
**100 MHz ... 40 GHz**  
**18 dB ... 50 dB Gain**

Page 21

**BPA / TWAP Series**  
Pulsed Amplifiers  
**300 MHz ... 18 GHz**  
**25 W ... 30 kW**

Page 22

**BSA****Solid State Amplifiers**

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions		Weight kg
						(H, D)	19"-System	
BSA 0110-100	9 kHz ... 100 MHz	100 / 125	50 / 52 ±2	20 / 20	600	4 HU, 550 mm	21	
BSA 0110-175	9 kHz ... 100 MHz	175 / 200	52.4 / 55 ±2	20 / 20	800	4 HU, 550 mm	32	
BSA 0110-350	9 kHz ... 100 MHz	350 / 400	55.4 / 58 ±2	20 / 20	1500	5 HU, 630 mm	45	
BSA 0110-500	9 kHz ... 100 MHz	500 / 600	57 / 59 ±10	20 / 20	2000	5 HU, 630 mm	55	
BSA 0110-600	9 kHz ... 100 MHz	700 / 700	57.8 / 60 ±10	20 / 18	2500	5 HU, 630 mm	52	
BSA 0110-1500	9 kHz ... 100 MHz	1500 / 1700	61.8 / 64 ±2	20 / 20	9000	32 HU, 630 mm	190	
BSA 0125-5	9 kHz ... 250 MHz	5 / 8	37 / 39 ±2	20 / 20	100	3 HU, 350 mm	11	
BSA 0125-15	9 kHz ... 250 MHz	15 / 25	41.8 / 44 ±2	20 / 20	175	3 HU, 350 mm	12	
BSA 0125-25	9 kHz ... 250 MHz	25 / 30	44 / 46 ±2	20 / 20	200	3 HU, 350 mm	13	
BSA 0125-75	9 kHz ... 250 MHz	75 / 100	48.8 / 51 ±2	20 / 20	350	4 HU, 550 mm	19	
BSA 0125-125	9 kHz ... 250 MHz	125 / 150	51 / 53 ±2	20 / 20	550	4 HU, 550 mm	21	
BSA 0125-150	9 kHz ... 250 MHz	150 / 200	51.8 / 54 ±2	20 / 18	800	4 HU, 550 mm	32	
BSA 0125-200	9 kHz ... 250 MHz	200 / 220	53 / 55 ±2	20 / 20	1200	4 HU, 550 mm	34	
BSA 0125-250	9 kHz ... 250 MHz	250 / 300	54 / 56 ±2	20 / 20	1400	5 HU, 630 mm	45	
BSA 0125-400	9 kHz ... 250 MHz	400 / 500	56 / 58 ±2	20 / 20	2000	5 HU, 630 mm	52	
BSA 0125-500	9 kHz ... 250 MHz	500 / 600	57 / 59 ±2	20 / 20	2500	5 HU, 630 mm	55	
BSA 0125-1000/600	9 kHz ... 250 MHz				6500	21 HU, 630 mm	220	
	9 kHz ... 100 MHz	1000 / 1200	60 / 62 ±2	20 / 20				
	200 ... 250 MHz	600 / 1000	60 / 62 ±2	20 / 20				
BSA 0140-5	9 kHz ... 400 MHz	5 / 8	37 / 39 ±2	20 / 20	100	3 HU, 350 mm	12	
BSA 0140-10	9 kHz ... 400 MHz	10 / 15	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	12	
BSA 0140-20	9 kHz ... 400 MHz	20 / 25	43 / 45 ±2	20 / 20	180	3 HU, 350 mm	13	
BSA 0140-40	9 kHz ... 400 MHz	40 / 50	46 / 48 ±2	20 / 20	350	4 HU, 550 mm	24	
BSA 0140-75	9 kHz ... 400 MHz	75 / 100	48.8 / 51 ±2	20 / 20	750	4 HU, 550 mm	32	
BSA 0140-150	9 kHz ... 400 MHz	150 / 200	51.8 / 54 ±2	20 / 20	1400	5 HU, 630 mm	42	
BSA 0140-500/150	9 kHz ... 400 MHz				2500	5 HU, 630 mm	54	
	9 kHz ... 250 MHz	500 / 600	57 / 59 ±2	20 / 20				
	250 ... 400 MHz	150 / 180	51.8 / 54 ±2	20 / 20				
BSA 0140-500D	9 kHz ... 400 MHz				2800	9 HU, 630 mm	85	
	9 kHz ... 100 MHz	500 / 600	57 / 59 ±2	20 / 20				
	100 ... 400 MHz	500 / 600	57 / 59 ±2	20 / 20				
BSA 0150-5	9 kHz ... 500 MHz	5 / 8	37 / 39 ±2	20 / 20	100	3 HU, 350 mm	11	
BSA 0150-10	9 kHz ... 500 MHz	10 / 12	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	12	
BSA 0150-25	9 kHz ... 500 MHz	25 / 30	44 / 46 ±2	20 / 20	200	3 HU, 350 mm	13	
BSA 0150-75	9 kHz ... 500 MHz	75 / 90	48.8 / 51 ±2	20 / 20	750	4 HU, 550 mm	35	
BSA 0150-150D	9 kHz ... 500 MHz				900	5 HU, 630 mm	44	
	9 kHz ... 250 MHz	150 / 180	51.8 / 54 ±2	20 / 20				
	200 ... 500 MHz	150 / 180	51.8 / 54 ±2	20 / 20				
BSA 0101-5	9 kHz ... 1000 MHz	5 / 8	37 / 39 ±2	20 / 20	100	3 HU, 350 mm	11	
BSA 0101-7.5	9 kHz ... 1000 MHz	7.5 / 10	38.8 / 41 ±2	20 / 20	100	3 HU, 350 mm	12	
BSA 0101-25/30D	9 kHz ... 1000 MHz				180	3 HU, 550 mm	18	
	9 kHz ... 250 MHz	25 / 30	44 / 46 ±1	20 / 20				
	200 ... 1000 MHz	30 / 35	44.8 / 47 ±2	20 / 20				
BSA 0101-75/60D	9 kHz ... 1000 MHz				450	4 HU, 550 mm	28	
	9 kHz ... 250 MHz	75 / 100	48.8 / 51 ±2	20 / 20				
	200 ... 1000 MHz	60 / 75	47.8 / 50 ±2	20 / 20				
BSA 0101-100D	9 kHz ... 1000 MHz				700	4 HU, 630 mm	38	
	9 kHz ... 100 MHz	100 / 120	50 / 52 ±2	20 / 20				
	100 ... 1000 MHz	100 / 120	50 / 52 ±2	20 / 20				
BSA 0101-150/120D	9 kHz ... 1000 MHz				900	5 HU, 630 mm	42	
	9 kHz ... 250 MHz	150 / 180	51.8 / 54 ±2	20 / 18				
	200 ... 1000 MHz	120 / 130	50.8 / 53 ±2	20 / 20				

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions		Weight kg
						(H, D)	19"-System	
BSA 1010-10	100 kHz ... 100 MHz	10 / 15	40 / 42 ±2	20 / 20	120	3 HU, 350 mm	11	
BSA 1010-25	100 kHz ... 100 MHz	25 / 35	44 / 46 ±2	20 / 20	180	3 HU, 350 mm	13	
BSA 1010-50	100 kHz ... 100 MHz	50 / 70	47 / 49 ±2	20 / 20	240	3 HU, 350 mm	13	
BSA 1010-100	100 kHz ... 100 MHz	100 / 120	50 / 52 ±2	20 / 20	400	4 HU, 550 mm	21	
BSA 1010-200	100 kHz ... 100 MHz	200 / 250	53 / 55 ±2	20 / 20	800	4 HU, 550 mm	30	
BSA 1010-500	100 kHz ... 100 MHz	500 / 600	57 / 59 ±2	20 / 18	2000	5 HU, 630 mm	45	
BSA 1010-1500	100 kHz ... 100 MHz	1500 / 1700	61.8 / 64 ±2	20 / 20	9000	32 HU, 630 mm	190	
BSA 1025-90	100 kHz ... 250 MHz	90 / 110	49.5 / 52 ±2	20 / 18	400	4 HU, 550 mm	21	
BSA 1025-150	100 kHz ... 250 MHz	150 / 180	51.8 / 54 ±2	20 / 20	800	4 HU, 550 mm	30	
BSA 1025-375	100 kHz ... 250 MHz	375 / 450	55.7 / 58 ±2	20 / 18	1800	5 HU, 630 mm	44	
BSA 1040-50	100 kHz ... 400 MHz	50 / 70	47 / 49 ±2	20 / 20	400	4 HU, 550 mm	19	
BSA 1040-100	100 kHz ... 400 MHz	100 / 120	50 / 52 ±2	20 / 20	700	4 HU, 550 mm	30	
BSA 1040-250	100 kHz ... 400 MHz	250 / 300	54 / 56 ±2	20 / 20	1700	5 HU, 630 mm	42	
BSA 1040-500/200D	100 kHz ... 400 MHz				2800	9 HU, 630 mm	80	
	100 kHz ... 100 MHz	500 / 600	57 / 59 ±2	20 / 18				
	100 ... 400 MHz	200 / 250	53 / 55 ±2	20 / 15				
BSA 1050-75	100 kHz ... 500 MHz	75 / 90	48.8 / 51 ±2	20 / 20	800	4 HU, 550 mm	322	
BSA 1050-150	100 kHz ... 500 MHz	150 / 175	51.8 / 52 ±2	20 / 20	1500	5 HU, 630 mm	42	
BSA 1050-250/100	100 kHz ... 500 MHz				1700	5 HU, 630 mm	45	
	100 kHz ... 400 MHz	250 / 300	54 / 56 ±2	20 / 20				
	400 ... 500 MHz	150 / 180	51.8 / 52 ±2	20 / 20				
BSA 1001-25/30D	100 kHz ... 1000 MHz				180	3 HU, 550 mm	18	
	100 kHz ... 100 MHz	25 / 30	44 / 46 ±2	20 / 20				
	100 ... 1000 MHz	30 / 35	44.8 / 47 ±2	20 / 20				
BSA 1001-50/75D	100 kHz ... 1000 MHz				600	4 HU, 550 mm	34	
	100 kHz ... 400 MHz	50 / 70	47 / 49 ±2	20 / 20				
	400 ... 1000 MHz	75 / 100	48.8 / 51 ±2	20 / 20				
BSA 1001-100D	100 kHz ... 1000 MHz				800	4 HU, 550 mm	36	
	100 kHz ... 400 MHz	100 / 120	50 / 52 ±2	20 / 20				
	400 ... 1000 MHz	100 / 120	50 / 52 ±2	20 / 20				
BSA 1515-25	150 kHz ... 150 MHz	25 / 35	44 / 46 ±2	20 / 20	200	3 HU, 350 mm	12	
BSA 1515-50	150 kHz ... 150 MHz	50 / 75	47 / 49 ±2	20 / 20	250	3 HU, 350 mm	14	
BSA 1501-1	150 kHz ... 1000 MHz	1 / 1.5	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BSA 1501-5	150 kHz ... 1000 MHz	5 / 7	37 / 39 ±2	20 / 20	100	3 HU, 350 mm	11	
BSA 1501-10	150 kHz ... 1000 MHz	10 / 12	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	12	
BSA 5001-1	500 kHz ... 1000 MHz	1 / 1.5	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BSA 5001-2	500 kHz ... 1000 MHz	2 / 2.5	33 / 35 ±2	20 / 20	75	3 HU, 350 mm	11	
BSA 5001-5	500 kHz ... 1000 MHz	5 / 7	37 / 39 ±2	18 / 20	100	3 HU, 350 mm	11	
BSA 5001-10	500 kHz ... 1000 MHz	10 / 12	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	12	

**BTA****Hybrid Amplifiers**

<b>Model</b>	<b>Frequency Range</b>	<b>Output Power</b> $P_N$ min / typ W	<b>Gain</b> min / typ dB	<b>Harmonics</b> 2nd / 3rd dBc	<b>Line Power</b> kVA	<b>Dimensions</b> (H, D) 19"-System	<b>Weight</b> kg
BTA 0110-5000	9 kHz ... 100 MHz	5000 / 6000	67 / 70 ±3	12 / 18	75	2x37 HU, 800 mm	900
BTA 0110-10000	9 kHz ... 100 MHz	10000 / 12000	70 / 73 ±3	12 / 18	100	2x37 HU, 800 mm	1100
BTA 0122-1000	9 kHz ... 220 MHz	1000 / 1200	60 / 63 ±3	12 / 18	12	15 HU, 800 mm	180
BTA 0122-2000	9 kHz ... 220 MHz	2000 / 2200	63 / 66 ±3	12 / 18	25	18 HU, 800 mm	220
BTA 0122-3000	9 kHz ... 220 MHz	3000 / 3300	64.8 / 67.5 ±2.5	12 / 18	25	32 HU, 800 mm	300

**BLWA****Solid State Amplifiers**

<b>Model</b>	<b>Frequency Range</b>	<b>Output Power</b> $P_N$ min / typ W	<b>Gain</b> min / typ dB	<b>Harmonics</b> 2nd / 3rd dBc	<b>Line Power</b> VA	<b>Dimensions</b> (H, D) 19"-System	<b>Weight</b> kg
BLWA 0103-100	1 ... 30 MHz	100 / 120	50 / 52 ±2	20 / 12	500	4 HU, 550 mm	21
BLWA 0103-250	1 ... 30 MHz	250 / 300	54 / 56 ±2	20 / 12	800	4 HU, 550 mm	22
BLWA 0103-500	1 ... 30 MHz	500 / 600	57 / 59 ±2	20 / 12	2500	4 HU, 630 mm	45
BLWA 0103-1000	1 ... 30 MHz	1000 / 1200	60 / 62 ±2	20 / 12	4500	7 HU, 630 mm	80
BLWA 0103-2000	1 ... 30 MHz	2000 / 2200	63 / 65 ±2	20 / 12	10000	8 HU, 630 mm	100
BLWA 0103-3500	1 ... 30 MHz	3500 / 4000	65.4 / 68 ±2	20 / 12	13000	15 HU, 630 mm	150
BLWA 0103-5000	1 ... 30 MHz	5000 / 6000	67 / 69 ±2	20 / 12	25000	36 HU, 800 mm	500
BLWA 0103-10000	1 ... 30 MHz	10000 / 12000	70 / 72 ±2	20 / 12	60000	2x37 HU, 800 mm	1000
BLWA 0103-20000	1 ... 30 MHz	20000 / 22000	73 / 75 ±2	20 / 12	120000	4x37 HU, 800 mm	2000
BLWA 0150-2	1 ... 500 MHz	2 / 2.5	33 / 35 ±2	20 / 20	75	3 HU, 350 mm	11
BLWA 0150-5	1 ... 500 MHz	5 / 6	37 / 39 ±2	20 / 20	100	3 HU, 350 mm	11
BLWA 0150-10	1 ... 500 MHz	10 / 12	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	12
BLWA 0150-25	1 ... 500 MHz	25 / 30	44 / 46 ±2	20 / 20	180	3 HU, 350 mm	13
BLWA 0110-1	1 ... 1000 MHz	1 / 1.5	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11
BLWA 0110-3	1 ... 1000 MHz	3 / 3.5	34.8 / 37 ±2	20 / 20	100	3 HU, 350 mm	11
BLWA 0110-5	1 ... 1000 MHz	5 / 6	37 / 39 ±2	20 / 20	150	3 HU, 350 mm	12
BLWA 0110-10	1 ... 1000 MHz	10 / 12	40 / 42 ±2	20 / 20	200	3 HU, 350 mm	13
BLWA 0110-30	1 ... 1000 MHz	30 / 35	44.8 / 47 ±2	20 / 20	700	4 HU, 550 mm	25
BLWA 0110-100	1 ... 1000 MHz	100 / 110	50 / 20 ±2	20 / 20	1400	4 HU, 630 mm	35
BLWA 0210-100	20 ... 100 MHz	100 / 120	50 / 52 ±2	20 / 15	450	4 HU, 550 mm	20
BLWA 0210-200	20 ... 100 MHz	200 / 250	53 / 55 ±2	20 / 15	800	4 HU, 550 mm	30
BLWA 0210-500	20 ... 100 MHz	500 / 600	57 / 59 ±2	20 / 15	1800	4 HU, 630 mm	35
BLWA 0210-1000	20 ... 100 MHz	1000 / 1200	60 / 62 ±2	20 / 15	5000	8 HU, 630 mm	100
BLWA 0210-1250	20 ... 100 MHz	1250 / 1400	61 / 63 ±2	20 / 15	7500	8 HU, 630 mm	150
BLWA 0210-1800	20 ... 100 MHz	1800 / 2000	62.5 / 65 ±2	20 / 15	12000	12 HU, 630 mm	200
BLWA 0210-2500	20 ... 100 MHz	2500 / 2700	64 / 66 ±2	20 / 15	12000	12 HU, 630 mm	200
BLWA 0210-3000	20 ... 100 MHz	3000 / 3300	64.8 / 67 ±2	20 / 15	20000	18 HU, 630 mm	300
BLWA 0210-4000	20 ... 100 MHz	4000 / 4500	66 / 68 ±2	20 / 15	23000	24 HU, 630 mm	400
BLWA 0210-5000	20 ... 100 MHz	5000 / 5500	67 / 69 ±2	20 / 15	30000	36 HU, 800 mm	500
BLWA 0210-10000	20 ... 100 MHz	10000 / 11000	70 / 72 ±2	20 / 15	60000	2x36 HU, 800 mm	1000



## BLWA

## Solid State Amplifiers

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions (H, D)		Weight kg
						19"-System		
BLWA 0810-10	80 ... 1000 MHz	10 / 12	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	13	
BLWA 0810-30	80 ... 1000 MHz	30 / 35	44.8 / 47 ±2	20 / 20	200	3 HU, 350 mm	13	
BLWA 0810-50	80 ... 1000 MHz	50 / 60	47 / 49 ±2	20 / 20	400	4 HU, 550 mm	20	
BLWA 0810-100	80 ... 1000 MHz	100 / 120	50 / 52 ±2	20 / 20	900	4 HU, 550 mm	26	
BLWA 0810-160/100D	80 ... 1000 MHz				800	4 HU, 550 mm	32	
	80 ... 400 MHz	160 / 180	52 / 54 ±2	20 / 15				
	400 ... 1000 MHz	100 / 120	50 / 52 ±2	20 / 20				
BLWA 0810-200	80 ... 1000 MHz	200 / 250	53 / 55 ±2	20 / 20	1500	5 HU, 630 mm	42	
BLWA 0810-250/100	80 ... 1000 MHz				1500	5 HU, 630 mm	40	
	80 ... 400 MHz	250 / 280	54 / 56 ±2	20 / 20				
	400 ... 1000 MHz	100 / 150	50 / 52 ±2	20 / 20				
BLWA 0810-250/200	80 ... 1000 MHz				1500	5 HU, 630 mm	40	
	80 ... 400 MHz	250 / 300	54 / 56 ±2	20 / 20				
	400 ... 1000 MHz	200 / 250	53 / 55 ±2	20 / 20				
BLWA 0810-350	80 ... 1000 MHz	350 / 400	55.4 / 58 ±2	20 / 20	3100	9 HU, 630 mm	90	
BLWA 0810-500/200D	80 ... 1000 MHz				3300	9 HU, 630 mm	85	
	80 ... 400 MHz	500 / 600	57 / 59 ±2	20 / 15				
	400 ... 1000 MHz	200 / 220	53 / 55 ±2	20 / 20				
BLWA 0810-500/350D	80 ... 1000 MHz				3300	12 HU, 630 mm	95	
	80 ... 400 MHz	500 / 600	57 / 59 ±2	20 / 15				
	400 ... 1000 MHz	350 / 400	55.4 / 58 ±2	20 / 20				
BLWA 0810-500D	80 ... 1000 MHz				3800	10 HU, 630 mm	95	
	80 ... 400 MHz	500 / 600	57 / 59 ±2	20 / 15				
	400 ... 1000 MHz	500 / 600	57 / 59 ±2	20 / 20				
BLWA 0810-650	80 ... 1000 MHz	650 / 750	58.1 / 61 ±2	20 / 20	7000	20 HU, 630 mm	250	
BLWA 0810-750/350D	80 ... 1000 MHz				5000	13 HU, 630 mm	140	
	80 ... 400 MHz	750 / 850	58.8 / 61 ±2	20 / 15				
	400 ... 1000 MHz	350 / 400	55.4 / 58 ±2	20 / 20				
BLWA 0810-750/500D	80 ... 1000 MHz				5000	13 HU, 630 mm	145	
	80 ... 400 MHz	750 / 850	58.8 / 61 ±2	20 / 15				
	400 ... 1000 MHz	500 / 600	57 / 59 ±2	20 / 20				
BLWA 0810-750/700D	80 ... 1000 MHz				5000	15 HU, 630 mm	145	
	80 ... 400 MHz	750 / 850	58.8 / 61 ±2	20 / 15				
	400 ... 1000 MHz	700 / 850	58.4 / 61 ±2	20 / 20				
BLWA 0810-1000/500D	80 ... 1000 MHz				9000	21 HU, 630 mm	220	
	80 ... 400 MHz	1000 / 1150	60 / 62 ±2	20 / 15				
	400 ... 1000 MHz	500 / 600	57 / 59 ±2	20 / 20				
BLWA 0810-1000/700D	80 ... 1000 MHz				9000	21 HU, 630 mm	220	
	80 ... 400 MHz	1000 / 1150	60 / 62 ±2	20 / 15				
	400 ... 1000 MHz	700 / 850	58.4 / 61 ±2	20 / 20				
BLWA 0810-1000D	80 ... 1000 MHz				9000	21 HU, 630 mm	220	
	80 ... 400 MHz	1000 / 1150	60 / 62 ±2	20 / 15				
	400 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20				
BLWA 0810-1500/700D	80 ... 1000 MHz				11000	24 HU, 630 mm	270	
	80 ... 400 MHz	1500 / 1700	61.8 / 64 ±2	20 / 15				
	400 ... 1000 MHz	700 / 850	58.4 / 61 ±2	20 / 20				
BLWA 0810-1500/1000D	80 ... 1000 MHz				11000	32 HU, 630 mm	400	
	80 ... 400 MHz	1500 / 1700	61.8 / 64 ±2	20 / 15				
	400 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20				
BLWA 0810-1500D	80 ... 1000 MHz				11000	37 HU, 630 mm	450	
	80 ... 400 MHz	1500 / 1700	61.8 / 64 ±2	20 / 15				
	400 ... 1000 MHz	1500 / 1700	61.8 / 64 ±2	20 / 20				
BLWA 0810-2000/1000D	80 ... 1000 MHz				18000	2x32 HU, 800 mm	550	
	80 ... 400 MHz	2000 / 2200	63 / 65 ±2	20 / 15				
	400 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20				
BLWA 0810-2000/1500D	80 ... 1000 MHz				18000	2x32 HU, 800 mm	600	
	80 ... 400 MHz	2000 / 2200	63 / 65 ±2	20 / 15				
	400 ... 1000 MHz	1500 / 1700	61.8 / 64 ±2	20 / 20				

## BLWA

## Solid State Amplifiers

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions (H, D)		Weight kg
						19"-System		
BLWA 0810-2000D	80 ... 1000 MHz 80 ... 400 MHz 400 ... 1000 MHz	2000 / 2200 2000 / 2200	63 / 65 ±2 63 / 65 ±2	20 / 15 20 / 20	18000	2x32 HU, 800 mm	600	
BLWA 0810-5000/3000D	80 ... 1000 MHz 80 ... 400 MHz 400 ... 1000 MHz	5000 / 5500 3000 / 3500	67 / 69 ±2 65 / 67 ±2	20 / 15 20 / 20	45000	2x37 HU, 800 mm	1200	
BLWA 0820-160/100/30D	80 ... 2000 MHz 80 ... 400 MHz 400 ... 1000 MHz 1 ... 2 GHz	160 / 180 100 / 120 30 / 35	52 / 54 ±2 50 / 52 ±2 47.8 / 50 ±2	20 / 15 20 / 20 20 / 20	800	5 HU, 630 mm	36	
BLWA 0820-160/100/60D	80 ... 2000 MHz 80 ... 400 MHz 400 ... 1000 MHz 1 ... 2 GHz	160 / 180 100 / 120 60 / 70	52 / 54 ±2 50 / 52 ±2 47.8 / 50 ±2	20 / 15 20 / 20 20 / 20	800	5 HU, 630 mm	38	
BLWA 0825-160/100/35D	80 MHz ... 2.5 GHz 80 ... 400 MHz 400 ... 1000 MHz 1 ... 2.5 GHz	160 / 180 100 / 120 35 / 40	52 / 54 ±2 50 / 52 ±2 45.4 / 48 ±2	20 / 15 20 / 20 20 / 20	800	5 HU, 630 mm	38	
BLWA 0825-160/100/70D	80 MHz ... 2.5 GHz 80 ... 400 MHz 400 ... 1000 MHz 1 ... 2.5 GHz	160 / 180 100 / 120 70 / 80	52 / 54 ±2 50 / 52 ±2 48.5 / 51 ±2	20 / 15 20 / 20 20 / 20	800	6 HU, 630 mm	54	
BLWA 0830-10D	80 ... 3000 MHz 80 ... 1000 MHz 1000 ... 3000 MHz	10 / 15 10 / 15	40 / 42 ±2 40 / 42 ±2	20 / 20 15 / 20	220	3 HU, 550 mm	17	
BLWA 0830-30/20D	80 ... 3000 MHz 80 ... 1000 MHz 1000 ... 3000 MHz	30 / 35 20 / 25	44.8 / 57 ±2 43 / 45 ±2	20 / 20 20 / 20	250	3 HU, 630 mm	21	
BLWA 0830-160/100/20D	80 ... 3000 MHz 80 ... 400 MHz 400 ... 1000 MHz 1000 ... 3000 MHz	160 / 180 100 / 120 20 / 25	52 / 54 ±2 50 / 52 ±2 43 / 45 ±2	20 / 15 20 / 20 20 / 20	800	5 HU, 630 mm	38	
BLWA 0830-160/100/40D	80 ... 3000 MHz 80 ... 400 MHz 400 ... 1000 MHz 1000 ... 3000 MHz	160 / 180 100 / 120 40 / 50	52 / 54 ±2 50 / 52 ±2 46 / 48 ±2	20 / 15 20 / 20 15 / 20	800	5 HU, 630 mm	40	
BLWA 0830-250/100/40D	80 ... 3000 MHz 80 ... 400 MHz 400 ... 1000 MHz 1000 ... 3000 MHz	250 / 300 100 / 120 40 / 50	54 / 56 ±2 50 / 52 ±2 46 / 48 ±2	20 / 15 20 / 20 15 / 20	1600	6 HU, 630 mm	65	
BLWA 0830-250/200/40D	80 ... 3000 MHz 80 ... 400 MHz 400 ... 1000 MHz 1000 ... 3000 MHz	250 / 300 200 / 240 40 / 50	54 / 56 ±2 53 / 55 ±2 46 / 48 ±2	20 / 15 20 / 20 15 / 20	1600	6 HU, 630 mm	65	
BLWA 0840-160/100/60/30D	80 MHz ... 4 GHz 80 ... 400 MHz 400 ... 1000 MHz 1 ... 2 GHz 2 ... 4 GHz	160 / 180 100 / 120 60 / 70 30 / 35	54 / 56 ±2 50 / 52 ±2 47.8 / 50 ±2 44.8 / 47 ±2	20 / 15 20 / 20 20 / 20 20 / 20	800	6 HU, 630 mm	62	

**BLWA****Solid State Amplifiers**

<b>Model</b>	<b>Frequency Range</b>	<b>Output Power</b> $P_N$ min / typ W	<b>Gain</b> min / typ dB	<b>Harmonics</b> 2nd / 3rd dBc	<b>Line Power</b> VA	<b>Dimensions</b> (H, D)	<b>Weight</b> 19"-System kg
						20 / 15	
BLWA 1050-150	100 ... 500 MHz	150 / 180	51.8 / 54 ±2	20 / 15	800	4 HU, 550 mm	30
BLWA 1050-250	100 ... 500 MHz	250 / 300	54 / 56 ±2	20 / 15	1500	4 HU, 550 mm	35
BLWA 1050-500	100 ... 500 MHz	500 / 600	57 / 59 ±2	20 / 15	3000	6 HU, 630 mm	55
BLWA 1050-750	100 ... 500 MHz	750 / 900	58.8 / 61 ±2	20 / 15	4500	8 HU, 630 mm	120
BLWA 1050-1000	100 ... 500 MHz	1000 / 1150	60 / 62 ±2	20 / 15	8000	16 HU, 630 mm	180
BLWA 1050-1500	100 ... 500 MHz	1500 / 1700	61.8 / 64 ±2	20 / 15	10000	21 HU, 630 mm	200
BLWA 1050-2000	100 ... 500 MHz	2000 / 2200	63 / 65 ±2	20 / 15	17000	29 HU, 630 mm	300
BLWA 1050-2500	100 ... 500 MHz	2500 / 2700	64 / 66 ±2	20 / 15	20000	41 HU, 630 mm	400
BLWA 1050-4000	100 ... 500 MHz	4000 / 4400	66 / 68 ±2	20 / 15	35000	2x32 HU, 800 mm	600
BLWA 1050-5000	100 ... 500 MHz	5000 / 5500	67 / 69 ±2	20 / 15	45000	2x32 HU, 800 mm	800
BLWA 2050-150	200 ... 500 MHz	150 / 180	51.8 / 54 ±2	20 / 20	700	4 HU, 550 mm	30
BLWA 2050-300	200 ... 500 MHz	300 / 330	54.8 / 57 ±2	20 / 20	1500	4 HU, 630 mm	35
BLWA 2050-500	200 ... 500 MHz	500 / 600	57 / 59 ±2	20 / 20	2500	5 HU, 630 mm	43
BLWA 2050-750	200 ... 500 MHz	750 / 850	58.8 / 61 ±2	20 / 20	4000	6 HU, 630 mm	80
BLWA 2050-1000	200 ... 500 MHz	1000 / 1150	60 / 62 ±2	20 / 20	6000	8 HU, 630 mm	120
BLWA 2050-1500	200 ... 500 MHz	1500 / 1700	61.8 / 64 ±2	20 / 20	8000	16 HU, 630 mm	180
BLWA 2050-2000	200 ... 500 MHz	2000 / 2200	63 / 65 ±2	20 / 20	10000	19 HU, 630 mm	200
BLWA 2050-2500	200 ... 500 MHz	2500 / 2700	64 / 66 ±2	20 / 20	17000	29 HU, 630 mm	300
BLWA 2050-3500	200 ... 500 MHz	3500 / 4000	65.4 / 68 ±2	20 / 20	20000	41 HU, 630 mm	400
BLWA 2050-4500	200 ... 500 MHz	4500 / 5000	65.5 / 68 ±2	20 / 20	35000	2x32 HU, 800 mm	600
BLWA 2050-6000	200 ... 500 MHz	6000 / 6500	67.8 / 70 ±2	20 / 20	45000	2x32 HU, 800 mm	600
BLWA 2010-10	200 ... 1000 MHz	10 / 13	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	13
BLWA 2010-30	200 ... 1000 MHz	30 / 40	44.8 / 47 ±2	20 / 20	200	3 HU, 350 mm	13
BLWA 2010-40	200 ... 1000 MHz	40 / 45	46 / 48 ±2	20 / 20	300	3 HU, 350 mm	13
BLWA 2010-60	200 ... 1000 MHz	60 / 70	47.8 / 50 ±2	20 / 20	400	4 HU, 550 mm	22
BLWA 2010-125	200 ... 1000 MHz	125 / 140	51 / 53 ±2	20 / 15	700	4 HU, 550 mm	25
BLWA 2010-250	200 ... 1000 MHz	250 / 300	54 / 56 ±2	20 / 15	1500	5 HU, 630 mm	40
BLWA 2010-400	200 ... 1000 MHz	400 / 450	56 / 58 ±2	20 / 15	3100	9 HU, 630 mm	90
BLWA 2010-500/350D	200 ... 1000 MHz	500 / 600	57 / 59 ±2	20 / 20	3300	9 HU, 630 mm	95
	200 ... 500 MHz	350 / 400	55.4 / 58 ±2	20 / 20			
BLWA 2010-500D	200 ... 1000 MHz	500 / 600	57 / 59 ±2	20 / 20	3800	10 HU, 630 mm	95
	200 ... 500 MHz	500 / 600	57 / 59 ±2	20 / 20			
BLWA 2010-750/350D	200 ... 1000 MHz	750 / 900	58.8 / 61 ±2	20 / 20	5000	13 HU, 630 mm	135
	500 ... 1000 MHz	350 / 400	55.5 / 58 ±2	20 / 20			
BLWA 2010-750/500D	200 ... 1000 MHz	750 / 900	58.8 / 61 ±2	20 / 20	5000	13 HU, 630 mm	135
	200 ... 500 MHz	500 / 600	57 / 59 ±2	20 / 20			
BLWA 2010-750/700D	200 ... 1000 MHz	750 / 900	58.8 / 61 ±2	20 / 20	5000	13 HU, 630 mm	135
	500 ... 1000 MHz	700 / 750	58.5 / 61 ±2	20 / 20			
BLWA 2010-750	200 ... 1000 MHz	750 / 850	58.8 / 61 ±2	20 / 15	7000	18 HU, 630 mm	165
BLWA 2010-1000/500D	200 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20	6000	15 HU, 630 mm	140
	500 ... 1000 MHz	500 / 600	58.5 / 61 ±2	20 / 20			
BLWA 2010-1000/700D	200 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20	6000	15 HU, 630 mm	140
	200 ... 500 MHz	700 / 750	58.5 / 61 ±2	20 / 20			
BLWA 2010-1000D	200 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20	7500	21 HU, 630 mm	190
	500 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20			
BLWA 2010-1500/700D	200 ... 1000 MHz	1500 / 1700	61.8 / 64 ±2	20 / 20	10000	23 HU, 630 mm	300
	200 ... 500 MHz	700 / 750	58.5 / 61 ±2	20 / 20			

# BLWA

# Solid State Amplifiers

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions		Weight kg
						(H, D)	19"-System	
BLWA 2010-1500/1000D	200 ... 1000 MHz 200 ... 500 MHz 500 ... 1000 MHz	1500 / 1700 1000 / 1150	61.8 / 64 ±2 60 / 62 ±2	20 / 20 20 / 20	10000	32 HU, 630 mm	350	
BLWA 2010-1500D	200 ... 1000 MHz 200 ... 500 MHz 500 ... 1000 MHz	1500 / 1700 1500 / 1700	61.8 / 64 ±2 61.8 / 64 ±2	20 / 20 20 / 20	10000	37 HU, 630 mm	400	
BLWA 2010-2000/1000D	200 ... 1000 MHz 200 ... 500 MHz 500 ... 1000 MHz	2000 / 2200 1000 / 1150	61.8 / 64 ±2 60 / 62 ±2	20 / 20 20 / 20	11000	37 HU, 630 mm	420	
BLWA 2010-2000/1500D	200 ... 1000 MHz 200 ... 500 MHz 500 ... 1000 MHz	2000 / 2200 1500 / 1700	63 / 65 ±2 61.8 / 64 ±2	20 / 20 20 / 20	11000	37 HU, 630 mm	450	
BLWA 2010-2000D	200 ... 1000 MHz 200 ... 500 MHz 500 ... 1000 MHz	2000 / 2200 2000 / 2200	63 / 65 ±2 63 / 65 ±2	20 / 20 20 / 20	11000	2x32 HU, 800 mm	600	
BLWA 4010-75	400 ... 1000 MHz	75 / 100	48.8 / 51 ±2	20 / 20	500	4 HU, 550 mm	18	
BLWA 4010-100	400 ... 1000 MHz	100 / 120	50 / 52 ±2	20 / 20	500	4 HU, 550 mm	20	
BLWA 4010-200	400 ... 1000 MHz	200 / 230	53 / 55 ±2	20 / 20	900	4 HU, 550 mm	28	
BLWA 4010-250	400 ... 1000 MHz	250 / 300	54 / 56 ±2	20 / 20	1200	4 HU, 550 mm	30	
BLWA 4010-350	400 ... 1000 MHz	350 / 400	55.4 / 58 ±2	20 / 20	1500	4 HU, 550 mm	32	
BLWA 4010-500	400 ... 1000 MHz	500 / 600	57 / 59 ±2	20 / 20	3300	7 HU, 630 mm	55	
BLWA 4010-700	400 ... 1000 MHz	700 / 750	58.5 / 61 ±2	20 / 20	3500	7 HU, 630 mm	55	
BLWA 4010-1000	400 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20	6000	18 HU, 630 mm	150	
BLWA 4010-1250	400 ... 1000 MHz	1250 / 1300	61 / 63 ±2	20 / 20	6000	18 HU, 630 mm	150	
BLWA 4010-1500	400 ... 1000 MHz	1500 / 1700	61.8 / 64 ±2	20 / 20	12000	26 HU, 630 mm	250	
BLWA 4010-2000	400 ... 1000 MHz	2000 / 2200	63 / 65 ±2	20 / 20	12000	26 HU, 630 mm	250	
BLWA 4010-3000	400 ... 1000 MHz	3000 / 3300	64.8 / 67 ±2	20 / 20	22000	37 HU, 630 mm	450	
BLWA 4010-4000	400 ... 1000 MHz	4000 / 4500	66 / 68 ±2	20 / 20	34000	37 HU, 630 mm	450	
BLWA 5010-75	500 ... 1000 MHz	75 / 100	48.8 / 51 ±2	20 / 20	500	4 HU, 550 mm	18	
BLWA 5010-100	500 ... 1000 MHz	100 / 120	50 / 52 ±2	20 / 20	500	4 HU, 550 mm	20	
BLWA 5010-100	500 ... 1000 MHz	100 / 120	50 / 52 ±2	20 / 20	500	4 HU, 550 mm	20	
BLWA 5010-200	500 ... 1000 MHz	200 / 230	53 / 55 ±2	20 / 20	900	4 HU, 550 mm	28	
BLWA 5010-250	500 ... 1000 MHz	250 / 300	54 / 56 ±2	20 / 20	1200	4 HU, 550 mm	30	
BLWA 5010-350	500 ... 1000 MHz	350 / 400	55.4 / 58 ±2	20 / 20	1500	4 HU, 550 mm	32	
BLWA 5010-500	500 ... 1000 MHz	500 / 600	57 / 59 ±2	20 / 20	3300	7 HU, 630 mm	55	
BLWA 5010-700	500 ... 1000 MHz	700 / 750	58.5 / 61 ±2	20 / 20	3500	7 HU, 630 mm	55	
BLWA 5010-1000	500 ... 1000 MHz	1000 / 1150	60 / 62 ±2	20 / 20	6000	18 HU, 630 mm	150	
BLWA 5010-1250	500 ... 1000 MHz	1250 / 1300	61 / 63 ±2	20 / 20	6000	18 HU, 630 mm	150	
BLWA 5010-1500	500 ... 1000 MHz	1500 / 1700	61.8 / 64 ±2	20 / 20	12000	26 HU, 630 mm	250	
BLWA 5010-2000	500 ... 1000 MHz	2000 / 2200	63 / 65 ±2	20 / 20	12000	26 HU, 630 mm	250	
BLWA 5010-3000	500 ... 1000 MHz	3000 / 3300	64.8 / 67 ±2	20 / 20	22000	37 HU, 630 mm	450	
BLWA 5010-4000	500 ... 1000 MHz	4000 / 4500	66 / 68 ±2	20 / 20	34000	37 HU, 630 mm	450	

BSA Solid State

BTA Broadband Hybrid

BLWA Solid State

Cellular Bands Solid State

BLMA Solid State

TWAL Travelling Wave Tube

EMI Preampifiers

BPA / TWAP Pulsed Amplifiers

**Cellular Bands****Solid State Amplifiers**

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions		Weight kg
						(H, D)	19"-System	
BLWA 8010-10	800 ... 1000 MHz	10 / 13	40 / 42 ±2	25 / 25	75	3 HU, 350 mm	12	
BLWA 8010-25	800 ... 1000 MHz	25 / 30	44 / 46 ±2	25 / 25	150	3 HU, 350 mm	12	
BLWA 8010-50	800 ... 1000 MHz	50 / 60	47 / 49 ±2	50 / 50	300	3 HU, 550 mm	15	
BLWA 8010-90	800 ... 1000 MHz	90 / 110	49.5 / 52 ±2	50 / 50	500	3 HU, 550 mm	18	
BLWA 8010-175	800 ... 1000 MHz	175 / 190	52.4 / 55 ±2	50 / 50	1200	4 HU, 630 mm	35	
BLWA 8996-10	890 ... 960 MHz	10 / 13	40 / 42 ±2	25 / 25	75	3 HU, 350 mm	12	
BLWA 8996-25	890 ... 960 MHz	25 / 30	44 / 46 ±2	25 / 25	150	3 HU, 350 mm	12	
BLWA 8996-50	890 ... 960 MHz	50 / 60	47 / 49 ±2	50 / 50	300	3 HU, 550 mm	15	
BLWA 8996-100	890 ... 960 MHz	100 / 115	50 / 52 ±2	50 / 50	500	3 HU, 550 mm	18	
BLWA 8996-200	890 ... 960 MHz	200 / 220	53 / 55 ±2	50 / 50	1200	4 HU, 630 mm	35	
BLWA 9396-10	930 ... 960 MHz	10 / 13	40 / 42 ±2	25 / 25	75	3 HU, 350 mm	11	
BLWA 9396-25	930 ... 960 MHz	25 / 30	44 / 46 ±2	25 / 25	150	3 HU, 350 mm	12	
BLWA 9396-50	930 ... 960 MHz	50 / 60	47 / 49 ±2	50 / 50	300	3 HU, 550 mm	15	
BLWA 9396-100	930 ... 960 MHz	100 / 115	50 / 52 ±2	50 / 50	500	3 HU, 550 mm	18	
BLWA 9396-200	930 ... 960 MHz	200 / 220	53 / 55 ±2	50 / 50	1200	4 HU, 630 mm	35	
BLMA 1719-10	1.7 ... 1.9 GHz	10 / 13	40 / 42 ±2	50 / 50	75	3 HU, 350 mm	12	
BLMA 1719-20	1.7 ... 1.9 GHz	20 / 25	43 / 45 ±2	50 / 50	180	3 HU, 350 mm	13	
BLMA 1719-40	1.7 ... 1.9 GHz	40 / 50	46 / 48 ±2	50 / 50	500	3 HU, 550 mm	20	
BLMA 1719-80	1.7 ... 1.9 GHz	80 / 100	49 / 51 ±2	50 / 50	650	4 HU, 550 mm	25	
BLMA 1719-150	1.7 ... 1.9 GHz	150 / 180	51.8 / 54 ±2	50 / 50	1500	4 HU, 630 mm	40	
BLMA 1820-120	1.8 ... 2 GHz	120 / 140	51 / 53 ±2	50 / 50	750	4 HU, 550 mm	27	
BLMA 1822-10	1.8 ... 2.2 GHz	10 / 13	40 / 42 ±2	50 / 50	75	3 HU, 350 mm	12	
BLMA 1822-20	1.8 ... 2.2 GHz	20 / 25	43 / 45 ±2	50 / 50	200	3 HU, 350 mm	14	
BLMA 1822-40	1.8 ... 2.2 GHz	40 / 50	46 / 48 ±2	50 / 50	350	3 HU, 550 mm	16	
BLMA 1822-100	1.8 ... 2.2 GHz	100 / 110	50 / 52 ±2	50 / 50	750	4 HU, 550 mm	27	
BLMA 1822-180	1.8 ... 2.2 GHz	180 / 200	52 / 54 ±2	50 / 50	1500	4 HU, 630 mm	40	
BLMA 1822-200	1.8 ... 2.2 GHz	200 / 220	53 / 55 ±2	50 / 50	1500	4 HU, 630 mm	40	
BLMA 1822-200/150	1.9 ... 2.1 GHz	200 / 220	53 / 55 ±2	50 / 50				
	1.9 ... 2.2 GHz	150 / 170	51.8 / 54 ±2	50 / 50				
BLMA 1921-10	1.9 ... 2.1 GHz	10 / 13	40 / 42 ±2	50 / 50	75	3 HU, 350 mm	12	
BLMA 1921-25	1.9 ... 2.1 GHz	25 / 30	44 / 46 ±2	50 / 50	200	3 HU, 350 mm	14	
BLMA 1921-50	1.9 ... 2.1 GHz	50 / 60	47 / 49 ±2	50 / 50	350	3 HU, 350 mm	16	
BLMA 1921-100	1.9 ... 2.1 GHz	100 / 110	50 / 52 ±2	50 / 50	650	4 HU, 550 mm	25	
BLMA 1921-200	1.9 ... 2.1 GHz	200 / 210	53 / 55 ±2	50 / 50	1500	4 HU, 630 mm	40	
BLMA 2021-50	2.11 ... 2.17 GHz	50 / 60	47 / 49 ±2	50 / 50	400	4 HU, 550 mm	25	
BLMA 2021-100	2.11 ... 2.17 GHz	100 / 110	50 / 52 ±2	50 / 50	750	4 HU, 550 mm	28	
BLMA 2021-200	2.11 ... 2.17 GHz	200 / 220	53 / 55 ±2	50 / 50	1800	4 HU, 630 mm	32	
BLMA 2325-10	2.3 ... 2.5 GHz	10 / 13	40 / 42 ±2	50 / 50	80	3 HU, 350 mm	12	
BLMA 2325-25	2.3 ... 2.5 GHz	25 / 30	44 / 46 ±2	50 / 50	180	3 HU, 350 mm	18	
BLMA 2325-50	2.3 ... 2.5 GHz	50 / 60	47 / 49 ±2	50 / 50	400	3 HU, 550 mm	25	
BLMA 2325-100	2.3 ... 2.5 GHz	100 / 110	50 / 52 ±2	50 / 50	800	3 HU, 550 mm	28	
BLMA 2325-150	2.3 ... 2.5 GHz	150 / 165	51.8 / 54 ±2	50 / 50	1500	4 HU, 630 mm	45	

**BLMA****Solid State Amplifiers**

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions		Weight kg
						(H, D)	19"-System	
BLMA 0118-0.1	0.1 ... 18 GHz	0.1 / 0.15	20 / 22 ±2	15 / 20	50	3 HU, 350 mm	11	
BLMA 0126-0.1	0.1 ... 26.5 GHz	0.1 / 0.15	20 / 24 ±4	15 / 20	50	3 HU, 350 mm	11	
BLMA 0520-1	0.5 ... 2 GHz	1 / 1.3	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 0520-2	0.5 ... 2 GHz	2 / 2.2	33 / 35 ±2	20 / 20	100	3 HU, 350 mm	13	
BLMA 0525-20	0.5 ... 2.5 GHz	20 / 30	43 / 45 ±2	12 / 20	150	3 HU, 350 mm	12	
BLMA 0525-35	0.5 ... 2.5 GHz	35 / 50	45.4 / 48 ±2	15 / 20	300	3 HU, 350 mm	13	
BLMA 0525-70	0.5 ... 2.5 GHz	70 / 100	48.4 / 51 ±2	15 / 20	500	3 HU, 550 mm	18	
BLMA 0820-1	0.8 ... 2 GHz	1 / 1.3	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0820-3	0.8 ... 2 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0820-7	0.8 ... 2 GHz	7 / 8	38.5 / 41 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0820-10	0.8 ... 2 GHz	10 / 12	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	11	
BLMA 0820-25	0.8 ... 2 GHz	25 / 30	44 / 46 ±2	20 / 20	200	3 HU, 350 mm	13	
BLMA 0820-50	0.8 ... 2 GHz	50 / 60	47 / 49 ±2	20 / 20	350	3 HU, 550 mm	22	
BLMA 0820-100	0.8 ... 2 GHz	100 / 120	50 / 52 ±2	20 / 20	700	3 HU, 630 mm	22	
BLMA 0820-200	0.8 ... 2 GHz	200 / 240	53 / 55 ±2	20 / 20	1200	3 HU, 630 mm	26	
BLMA 0820-400	0.8 ... 2 GHz	400 / 450	56 / 58 ±2	20 / 20	2600	6 HU, 630 mm	50	
BLMA 0820-750	0.8 ... 2 GHz	750 / 900	58.8 / 61 ±2	20 / 20	6000	15 HU, 630 mm	150	
BLMA 0822-1	0.8 ... 2.2 GHz	1 / 1.3	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0822-3	0.8 ... 2.2 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0822-7	0.8 ... 2.2 GHz	7 / 8	38.5 / 41 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0822-10	0.8 ... 2.2 GHz	10 / 12	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	11	
BLMA 0822-25	0.8 ... 2.2 GHz	25 / 30	44 / 46 ±2	20 / 20	200	3 HU, 350 mm	11	
BLMA 0822-50	0.8 ... 2.2 GHz	50 / 60	47 / 49 ±2	20 / 20	350	3 HU, 630 mm	18	
BLMA 0822-100	0.8 ... 2.2 GHz	100 / 120	50 / 52 ±2	20 / 20	700	3 HU, 630 mm	22	
BLMA 0822-200	0.8 ... 2.2 GHz	200 / 240	53 / 55 ±2	20 / 20	1200	3 HU, 630 mm	26	
BLMA 0822-400	0.8 ... 2.2 GHz	400 / 450	56 / 58 ±2	20 / 20	2600	6 HU, 630 mm	50	
BLMA 0822-750	0.8 ... 2.2 GHz	750 / 900	58.8 / 61 ±2	20 / 20	6000	15 HU, 630 mm	150	
BLMA 0825-1	0.8 ... 2.5 GHz	1 / 1.3	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0825-3	0.8 ... 2.5 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0825-5	0.8 ... 2.5 GHz	5 / 6	37 / 39 ±2	20 / 20	75	3 HU, 350 mm	12	
BLMA 0825-10	0.8 ... 2.5 GHz	10 / 13	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	13	
BLMA 0825-20	0.8 ... 2.5 GHz	20 / 25	43 / 45 ±2	20 / 20	250	3 HU, 350 mm	13	
BLMA 0825-40	0.8 ... 2.5 GHz	40 / 50	46 / 48 ±2	20 / 20	350	3 HU, 630 mm	18	
BLMA 0825-75	0.8 ... 2.5 GHz	75 / 90	48.8 / 51 ±2	20 / 20	800	3 HU, 630 mm	22	
BLMA 0825-150	0.8 ... 2.5 GHz	150 / 180	51.8 / 54 ±2	20 / 20	1200	3 HU, 630 mm	26	
BLMA 0825-200	0.8 ... 2.5 GHz	200 / 220	53 / 55 ±2	20 / 20	1600	4 HU, 630 mm	35	
BLMA 0825-300	0.8 ... 2.5 GHz	300 / 350	54.8 / 57 ±2	20 / 20	2400	6 HU, 630 mm	52	
BLMA 0825-500	0.8 ... 2.5 GHz	500 / 550	57 / 59 ±2	20 / 20	5000	13 HU, 630 mm	120	
BLMA 0830-1	0.8 ... 3 GHz	1 / 1.3	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0830-3	0.8 ... 3 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	75	3 HU, 350 mm	12	
BLMA 0830-6	0.8 ... 3 GHz	6 / 7	37.8 / 40 ±2	20 / 20	100	3 HU, 350 mm	12	
BLMA 0830-10	0.8 ... 3 GHz	10 / 13	40 / 42 ±2	20 / 20	150	3 HU, 550 mm	16	
BLMA 0830-20	0.8 ... 3 GHz	20 / 25	43 / 45 ±2	20 / 20	220	3 HU, 550 mm	17	
BLMA 0830-40	0.8 ... 3 GHz	40 / 50	46 / 48 ±2	20 / 20	300	3 HU, 550 mm	19	
BLMA 0840-30/20D	0.8 ... 4 GHz				200	3 HU, 550 mm	20	
	0.8 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
	2 ... 4 GHz	20 / 25	43 / 45 ±2	20 / 20				
BLMA 0840-30D	0.8 ... 4 GHz				350	3 HU, 630 mm	23	
	0.8 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
	2 ... 4 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
BLMA 0840-50/35D	0.8 ... 4 GHz				500	3 HU, 630 mm	23	
	0.8 ... 2 GHz	50 / 60	47 / 49 ±2	20 / 20				
	2 ... 4 GHz	35 / 40	44.8 / 47 ±2	20 / 20				

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Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions (H, D)		Weight kg
						19"-System	19"-System	
BLMA 0840-50/60D	0.8 ... 4 GHz 0.8 ... 2 GHz 2 ... 4 GHz	50 / 60 60 / 75	47 / 49 ±2 47.8 / 50 ±2	20 / 20 20 / 20	600	3 HU, 630 mm	26	
BLMA 0840-100/60D	0.8 ... 4 GHz 0.8 ... 2 GHz 2 ... 4 GHz	100 / 120 60 / 75	50 / 52 ±2 47.8 / 50 ±2	20 / 20 20 / 20	750	3 HU, 630 mm	28	
BLMA 0840-100D	0.8 ... 4 GHz 0.8 ... 2 GHz 2 ... 4 GHz	100 / 120 100 / 120	50 / 52 ±2 50 / 52 ±2	20 / 20 20 / 20	1300	6 HU, 630 mm	42	
BLMA 0840-200/100D	0.8 ... 4 GHz 0.8 ... 2 GHz 2 ... 4 GHz	200 / 240 100 / 120	53 / 55 ±2 50 / 52 ±2	20 / 20 20 / 20	1300	6 HU, 630 mm	45	
BLMA 0840-200D	0.8 ... 4 GHz 0.8 ... 2 GHz 2 ... 4 GHz	200 / 240 200 / 240	53 / 55 ±2 53 / 55 ±2	20 / 20 20 / 20	2500	9 HU, 630 mm	52	
BLMA 0840-400/200D	0.8 ... 4 GHz 0.8 ... 2 GHz 2 ... 4 GHz	400 / 450 200 / 240	56 / 58 ±2 53 / 55 ±2	20 / 20 20 / 20	2500	13 HU, 630 mm	105	
BLMA 0840-400D	0.8 ... 4 GHz 0.8 ... 2 GHz 2 ... 4 GHz	400 / 450 400 / 450	56 / 58 ±2 56 / 58 ±2	20 / 20 20 / 20	6500	19 HU, 630 mm	180	
BLMA 0840-750/400D	0.8 ... 4 GHz 0.8 ... 2 GHz 2 ... 4 GHz	750 / 900 400 / 450	58.8 / 61 ±2 56 / 58 ±2	20 / 20 20 / 20	9000	30 HU, 630 mm	230	
BLMA 0842-1	0.8 ... 4.2 GHz	1 / 1.3	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0842-3	0.8 ... 4.2 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 0842-5	0.8 ... 4.2 GHz	5 / 6	37 / 39 ±2	20 / 20	130	3 HU, 350 mm	12	
BLMA 0842-10	0.8 ... 4.2 GHz	10 / 13	40 / 42 ±2	20 / 20	300	3 HU, 550 mm	16	
BLMA 0842-20	0.8 ... 4.2 GHz	20 / 25	43 / 45 ±2	20 / 20	400	4 HU, 550 mm	24	
BLMA 0842-40	0.8 ... 4.2 GHz	40 / 50	46 / 48 ±2	20 / 20	1500	4 HU, 630 mm	35	
BLMA 0842-80	0.8 ... 4.2 GHz	80 / 100	49 / 51 ±2	20 / 20	2500	6 HU, 630 mm	60	
BLMA 0860-30D	0.8 ... 6 GHz 0.8 ... 2.5 GHz 2.5 ... 6 GHz	30 / 35 30 / 35	44 / 46 ±2 44 / 46 ±2	15 / 20 15 / 20	450	3 HU, 550 mm	25	
BLMA 0860-100D	0.8 ... 6 GHz 0.8 ... 2 GHz 2 ... 6 GHz	100 / 125 100 / 125	50 / 52 ±2 50 / 52 ±2	20 / 20 20 / 20	1300	7 HU, 630 mm	65	
BLMA 0880-0.8	0.8 ... 8 GHz	0.8 / 1	29 / 32 ±3	15 / 18	75	3 HU, 350 mm	11	
BLMA 0818-10D	0.8 ... 8 GHz 0.8 ... 2 GHz 2 ... 6 GHz 6 ... 8 GHz	10 / 12 10 / 12 10 / 12	40 / 42 ±2 40 / 42 ±2 40 / 43 ±3	20 / 20 20 / 20 15 / 20	200	3 HU, 550 mm	21	
BLMA 0818-30/20D	0.8 ... 8 GHz 0.8 ... 2 GHz 2 ... 6 GHz 6 ... 8 GHz	30 / 35 20 / 25 20 / 22	44.8 / 48 ±3 43 / 46 ±3 43 / 46 ±3	20 / 20 15 / 20 12 / 20	400	3 HU, 550 mm	26	
BLMA 1020-1	1 ... 2 GHz	1 / 1.3	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 1020-3	1 ... 2 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 1020-5	1 ... 2 GHz	5 / 6	37 / 39 ±2	20 / 20	100	3 HU, 350 mm	11	
BLMA 1020-10	1 ... 2 GHz	10 / 13	40 / 42 ±2	20 / 20	150	3 HU, 350 mm	11	
BLMA 1020-30	1 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20	180	3 HU, 350 mm	11	
BLMA 1020-60	1 ... 2 GHz	60 / 70	47.8 / 50 ±2	20 / 20	350	3 HU, 550 mm	22	
BLMA 1020-100	1 ... 2 GHz	100 / 125	50 / 52 ±2	20 / 20	600	3 HU, 630 mm	22	
BLMA 1020-120	1 ... 2 GHz	120 / 140	50.8 / 53 ±2	20 / 20	700	3 HU, 630 mm	22	
BLMA 1020-200	1 ... 2 GHz	200 / 240	53 / 55 ±2	20 / 20	1200	3 HU, 630 mm	28	
BLMA 1020-240	1 ... 2 GHz	240 / 270	53.8 / 56 ±2	20 / 20	1600	3 HU, 630 mm	28	

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Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions		Weight kg
						(H, D)	19"-System	
BLMA 1020-400	1 ... 2 GHz	400 / 450	56 / 58 ±2	20 / 20	2600	7 HU, 630 mm	55	
BLMA 1020-450	1 ... 2 GHz	450 / 500	56.5 / 59 ±2	20 / 20	3500	7 HU, 630 mm	55	
BLMA 1020-550	1 ... 2 GHz	550 / 600	57.4 / 60 ±2	20 / 20	4500	12 HU, 630 mm	120	
BLMA 1020-600	1 ... 2 GHz	600 / 700	57.8 / 60 ±2	20 / 20	5000	12 HU, 630 mm	120	
BLMA 1020-750	1 ... 2 GHz	750 / 900	58.8 / 61 ±2	20 / 20	6000	15 HU, 630 mm	150	
BLMA 1020-850	1 ... 2 GHz	850 / 1000	59.3 / 62 ±2	20 / 20	7000	15 HU, 630 mm	150	
BLMA 1030-1	1 ... 3 GHz	1 / 1.3	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 1030-3	1 ... 3 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	75	3 HU, 350 mm	12	
BLMA 1030-5	1 ... 3 GHz	5 / 6	37 / 39 ±2	20 / 20	75	3 HU, 350 mm	12	
BLMA 1030-8	1 ... 3 GHz	8 / 10	39 / 41 ±2	20 / 20	100	3 HU, 350 mm	12	
BLMA 1030-10	1 ... 3 GHz	10 / 13	40 / 42 ±2	15 / 20	150	3 HU, 550 mm	16	
BLMA 1030-20	1 ... 3 GHz	20 / 25	43 / 45 ±2	15 / 20	200	3 HU, 550 mm	17	
BLMA 1030-40	1 ... 3 GHz	40 / 50	46 / 48 ±2	12 / 20	250	3 HU, 550 mm	19	
BLMA 1030-80	1 ... 3 GHz	80 / 100	49 / 51 ±2	15 / 20	800	4 HU, 630 mm	32	
BLMA 1030-150	1 ... 3 GHz	160 / 200	51.8 / 54 ±2	15 / 20	1800	4 HU, 630 mm	35	
BLMA 1040-30/20D	1 ... 4 GHz				200	3 HU, 550 mm	20	
	1 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
	2 ... 4 GHz	20 / 35	43 / 45 ±2	20 / 20				
BLMA 1040-30D	1 ... 4 GHz				350	3 HU, 630 mm	23	
	1 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
	2 ... 4 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
BLMA 1040-60/35D	1 ... 4 GHz				500	3 HU, 630 mm	23	
	1 ... 2 GHz	60 / 70	47.8 / 50 ±2	20 / 20				
	2 ... 4 GHz	35 / 40	45.4 / 48 ±2	20 / 20				
BLMA 1040-60D	1 ... 4 GHz				600	3 HU, 630 mm	26	
	1 ... 2 GHz	60 / 70	47.8 / 50 ±2	20 / 20				
	2 ... 4 GHz	60 / 75	47.8 / 50 ±2	20 / 20				
BLMA 1040-100/60D	1 ... 4 GHz				750	3 HU, 630 mm	28	
	1 ... 2 GHz	100 / 120	50 / 52 ±2	20 / 20				
	2 ... 4 GHz	60 / 75	47.8 / 50 ±2	20 / 20				
BLMA 1040-100D	1 ... 4 GHz				1300	6 HU, 630 mm	45	
	1 ... 2 GHz	100 / 120	50 / 52 ±2	20 / 20				
	2 ... 4 GHz	100 / 120	50 / 52 ±2	20 / 20				
BLMA 1040-200/100D	1 ... 4 GHz				1300	6 HU, 630 mm	45	
	1 ... 2 GHz	200 / 240	53 / 55 ±2	20 / 20				
	2 ... 4 GHz	100 / 120	50 / 52 ±2	20 / 20				
BLMA 1040-200D	1 ... 4 GHz				2500	9 HU, 630 mm	52	
	1 ... 2 GHz	200 / 240	53 / 55 ±2	20 / 20				
	2 ... 4 GHz	200 / 240	53 / 55 ±2	20 / 20				
BLMA 1040-240/200D	1 ... 4 GHz				2700	9 HU, 630 mm	52	
	1 ... 2 GHz	240 / 260	53.8 / 56 ±2	20 / 20				
	2 ... 4 GHz	200 / 240	53 / 55 ±2	20 / 20				
BLMA 1040-300/200D	1 ... 4 GHz				2700	9 HU, 630 mm	55	
	1 ... 2 GHz	300 / 320	54.8 / 57 ±2	20 / 20				
	2 ... 4 GHz	200 / 240	53 / 55 ±2	20 / 20				
BLMA 1040-400/200D	1 ... 4 GHz				2700	13 HU, 630 mm	105	
	1 ... 2 GHz	400 / 450	56 / 58 ±2	20 / 20				
	2 ... 4 GHz	200 / 240	53 / 55 ±2	20 / 20				
BLMA 1040-400D	1 ... 4 GHz				6000	19 HU, 630 mm	180	
	1 ... 2 GHz	400 / 450	56 / 58 ±2	20 / 20				
	2 ... 4 GHz	400 / 450	56 / 58 ±2	20 / 20				
BLMA 1040-750/400D	1 ... 4 GHz				9000	30 HU, 630 mm	230	
	1 ... 2 GHz	750 / 900	58.8 / 61 ±2	20 / 20				
	2 ... 4 GHz	400 / 450	56 / 58 ±2	20 / 20				
BLMA 1060-30/20D	1 ... 6 GHz				400	3 HU, 350 mm	20	
	1 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
	2 ... 6 GHz	20 / 25	43 / 45 ±2	20 / 20				

BLMA		Solid State Amplifiers						
Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions (H, D) 19"-System	Weight kg	
BLMA 1060-30D	1 ... 6 GHz							
	1 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
	2 ... 6 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
BLMA 1060-50D	1 ... 6 GHz				700	4 HU, 630 mm	36	
	1 ... 2 GHz	50 / 70	47 / 49 ±2	20 / 20				
	2 ... 6 GHz	50 / 80	47 / 49 ±2	20 / 20				
BLMA 1060-100/50D	1 ... 6 GHz							
	1 ... 2 GHz	110 / 125	50.4 / 53 ±2	20 / 20				
	2 ... 4 GHz	100 / 120	50.4 / 53 ±2	15 / 20				
	4 ... 6 GHz	50 / 60	47 / 49 ±2	20 / 20				
BLMA 1060-100D	1 ... 6 GHz				1500	6 HU, 630 mm	62	
	1 ... 2 GHz	100 / 125	50 / 52 ±2	20 / 20				
	2 ... 6 GHz	100 / 125	50 / 52 ±2	20 / 20				
BLMA 1060-200/100D	1 ... 6 GHz							
	1 ... 2 GHz	200 / 240	53 / 55 ±2	20 / 20				
	2 ... 4 GHz	180 / 240	53 / 55 ±2	15 / 20				
	4 ... 6 GHz	100 / 120	50 / 52 ±2	20 / 20				
BLMA 1018-0.5	1 ... 18 GHz	0.5 / 0.6	27 / 30 ±3	20 / 20	75	3 HU, 350 mm	11	
BLMA 1018-1D	1 ... 18 GHz				75	3 HU, 350 mm	12	
	1 ... 2 GHz	1 / 1.2	30 / 33 ±3	20 / 20				
	2 ... 16 GHz	1 / 1.2	30 / 33 ±3	20 / 20				
	16 ... 18 GHz	0.8 / 1	29 / 32 ±3	20 / 20				
BLMA 1018-4D	1 ... 18 GHz				180	3 HU, 350 mm	18	
	1 ... 2 GHz	4 / 5	36 / 39 ±3	20 / 20				
	2 ... 6 GHz	4 / 5	36 / 39 ±3	20 / 20				
	6 ... 18 GHz	4 / 5	36 / 39 ±3	20 / 20				
BLMA 1018-10D	1 ... 18 GHz				200	3 HU, 550 mm	21	
	1 ... 2 GHz	10 / 12	40 / 42 ±2	20 / 20				
	2 ... 6 GHz	10 / 12	40 / 42 ±2	20 / 20				
	6 ... 18 GHz	10 / 12	40 / 43 ±3	15 / 20				
BLMA 1018-30/20D	1 ... 18 GHz				400	3 HU, 550 mm	26	
	1 ... 2 GHz	30 / 35	44.8 / 48 ±3	20 / 20				
	2 ... 6 GHz	20 / 25	43 / 46 ±3	15 / 20				
	6 ... 18 GHz	20 / 22	43 / 46 ±3	12 / 20				
BLMA 2040-1	2 ... 4 GHz	1 / 1.3	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 2040-3	2 ... 4 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 2040-7	2 ... 4 GHz	7 / 9	38.5 / 41 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 2040-20	2 ... 4 GHz	20 / 25	43 / 45 ±2	20 / 20	200	3 HU, 350 mm	15	
BLMA 2040-35	2 ... 4 GHz	35 / 45	45.4 / 48 ±2	20 / 20	400	3 HU, 630 mm	22	
BLMA 2040-60	2 ... 4 GHz	60 / 75	47.8 / 50 ±2	20 / 20	600	3 HU, 630 mm	26	
BLMA 2040-110	2 ... 4 GHz	110 / 130	50.4 / 53 ±2	20 / 20	1100	3 HU, 630 mm	28	
BLMA 2040-200	2 ... 4 GHz	200 / 240	53 / 55 ±2	20 / 20	2500	6 HU, 630 mm	45	
BLMA 2040-300	2 ... 4 GHz	300 / 350	54.8 / 57 ±2	20 / 20	4000	12 HU, 630 mm	120	
BLMA 2040-400	2 ... 4 GHz	400 / 450	56 / 58 ±2	20 / 20	5000	15 HU, 630 mm	150	
BLMA 2060-0.5	2 ... 6 GHz	0.5 / 0.6	27 / 29 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2060-1	2 ... 6 GHz	1 / 1.2	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2060-2	2 ... 6 GHz	2 / 2.3	33 / 35 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 2060-3	2 ... 6 GHz	3 / 3.3	34.8 / 37 ±2	20 / 20	90	3 HU, 350 mm	11	
BLMA 2060-10	2 ... 6 GHz	10 / 12	40 / 42 ±2	20 / 20	100	3 HU, 350 mm	12	
BLMA 2060-20	2 ... 6 GHz	20 / 25	43 / 45 ±2	20 / 20	300	3 HU, 550 mm	16	
BLMA 2060-30	2 ... 6 GHz	30 / 40	44.8 / 47 ±2	20 / 20	400	3 HU, 630 mm	22	
BLMA 2060-50	2 ... 6 GHz	50 / 80	47 / 49 ±2	20 / 20	800	3 HU, 630 mm	28	
BLMA 2060-100	2 ... 6 GHz	100 / 130	50 / 52 ±2	20 / 20	1500	3 HU, 630 mm	56	
BLMA 2080-0.5	2 ... 8 GHz	0.5 / 0.6	27 / 29 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2080-1	2 ... 8 GHz	1 / 1.2	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2080-2	2 ... 8 GHz	2 / 2.3	33 / 35 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 2080-10	2 ... 8 GHz	10 / 12	40 / 42 ±2	15 / 20	150	3 HU, 350 mm	13	

# BLMA

# Solid State Amplifiers

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions		Weight kg
						(H, D)	19"-System	
BLMA 2018-0.2	2 ... 18 GHz	0.2 / 0.25	23 / 25 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2018-0.3	2 ... 18 GHz	0.3 / 0.35	24.8 / 27 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2018-0.5	2 ... 18 GHz	0.5 / 0.8	27 / 29 ±2	15 / 20	50	3 HU, 350 mm	11	
BLMA 2018-0.8	2 ... 18 GHz	0.8 / 1	29 / 32 ±2	20 / 20	65	3 HU, 350 mm	11	
BLMA 2018-1	2 ... 18 GHz				65	3 HU, 350 mm		
	2 ... 16 GHz	1 / 1.2	30 / 33 ±3	20 / 20				
	16 ... 18 GHz	0.8 / 1	29 / 32 ±3	20 / 20				
BLMA 2018-1.5	2 ... 18 GHz	1.5 / 1.8	32 / 35 ±3	20 / 20	150	3 HU, 350 mm	13	
BLMA 2020-1	2 ... 20 GHz	1 / 1.2	30 / 32 ±2	18 / 20	65	3 HU, 350 mm	12	
BLMA 2020-5	2 ... 20 GHz	5 / 6	37 / 39 ±2	18 / 20	200	3 HU, 350 mm	15	
BLMA 2560-10	2.5 ... 6 GHz	10 / 12	40 / 42 ±2	15 / 20	150	3 HU, 350 mm	12	
BLMA 2560-30	2.5 ... 6 GHz	30 / 35	44.8 / 47 ±2	15 / 20	500	3 HU, 630 mm	25	
BLMA 4060-2	4 ... 6 GHz	2 / 2.5	33 / 35 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 4060-4	4 ... 6 GHz	4 / 4.5	36 / 38 ±2	20 / 20	110	3 HU, 350 mm	12	
BLMA 4060-8	4 ... 6 GHz	8 / 9	39 / 41 ±2	20 / 20	250	3 HU, 350 mm	13	
BLMA 4060-10	4 ... 6 GHz	10 / 11	40 / 42 ±2	20 / 20	300	3 HU, 350 mm	13	
BLMA 4060-20	4 ... 6 GHz	20 / 22	43 / 45 ±2	15 / 20	450	3 HU, 350 mm	14	
BLMA 4060-30	4 ... 6 GHz	30 / 40	44.8 / 47 ±2	20 / 20	300	3 HU, 630 mm	22	
BLMA 4060-50	4 ... 6 GHz	50 / 70	47 / 49 ±2	20 / 20	600	3 HU, 630 mm	26	
BLMA 4060-100	4 ... 6 GHz	100 / 130	50 / 52 ±2	20 / 20	1500	6 HU, 630 mm	56	
BLMA 4080-1	4 ... 8 GHz	1 / 1.2	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 4080-2	4 ... 8 GHz	2 / 2.3	33 / 35 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 4080-2.5	4 ... 8 GHz	2.5 / 3	34 / 36 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 4080-4	4 ... 8 GHz	4 / 4.5	36 / 39 ±2	20 / 20	110	3 HU, 350 mm	12	
BLMA 4080-7	4 ... 8 GHz	7 / 8	38.5 / 42 ±2	15 / 20	200	3 HU, 350 mm	12	
BLMA 4080-8	4 ... 8 GHz	8 / 9	39 / 41 ±2	20 / 20	250	3 HU, 350 mm	13	
BLMA 4080-10	4 ... 8 GHz	10 / 11	40 / 42 ±2	20 / 20	300	3 HU, 350 mm	13	
BLMA 4080-20	4 ... 8 GHz	20 / 22	43 / 46 ±3	12 / 20	350	3 HU, 550 mm	18	
BLMA 4080-30	4 ... 8 GHz	30 / 35	44.8 / 48 ±3	20 / 20	700	4 HU, 550 mm	30	
BLMA 4080-60	4 ... 8 GHz	60 / 70	47.8 / 51 ±3	20 / 20	1400	5 HU, 550 mm	38	
BLMA 4010-0.5	4 ... 10 GHz	0.5 / 0.6	27 / 29 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 4010-1	4 ... 10 GHz	1 / 1.2	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 4010-2	4 ... 10 GHz	2 / 2.3	33 / 35 ±2	20 / 20	90	3 HU, 350 mm	11	
BLMA 4010-6	4 ... 10 GHz	6 / 6.5	37.8 / 40 ±2	20 / 20	200	3 HU, 350 mm	13	
BLMA 4012-5	4 ... 12 GHz	5 / 6	37 / 39 ±2	20 / 20	200	3 HU, 350 mm	13	
BLMA 4012-10	4 ... 12 GHz	10 / 11	40 / 42 ±2	20 / 20	300	3 HU, 350 mm	13	
BLMA 4018-5D	4 ... 18 GHz				200	3 HU, 350 mm	12	
	4 ... 8 GHz	5 / 6	37 / 39 ±2	18 / 20				
	8 ... 18 GHz	5 / 6	37 / 40 ±3	12 / 20				
BLMA 4018-20D	4 ... 18 GHz				350	3 HU, 630 mm	24	
	4 ... 6 GHz	20 / 25	43 / 45 ±2	20 / 20				
	6 ... 18 GHz	20 / 22	43 / 46 ±3	12 / 20				
BLMA 4018-30D	4 ... 18 GHz				600	5 HU, 630 mm	46	
	4 ... 6 GHz	30 / 35	44.8 / 47 ±2	20 / 20				
	6 ... 18 GHz	30 / 35	44.8 / 47 ±3	12 / 20				
BLMA 6012-0.5	6 ... 12 GHz	0.5 / 0.6	27 / 29 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 6012-1	6 ... 12 GHz	1 / 1.2	30 / 32 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 6012-2	6 ... 12 GHz	2 / 2.3	33 / 35 ±2	20 / 20	90	3 HU, 350 mm	11	
BLMA 6012-10	6 ... 12 GHz	10 / 11	40 / 42 ±2	15 / 20	300	3 HU, 350 mm	13	
BLMA 6012-20	6 ... 12 GHz	20 / 22	43 / 45 ±2	15 / 20	450	3 HU, 550 mm	14	
BLMA 6018-0.5	6 ... 18 GHz	0.5 / 0.6	27 / 29 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 6018-1	6 ... 18 GHz	1 / 1.2	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	10	

**BLMA****Solid State Amplifiers**

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions		Weight kg
						(H, D)	19"-System	
BLMA 6018-2	6 ... 18 GHz	2 / 2.3	33 / 35 ±2	15 / 20	50	3 HU, 350 mm	10	
BLMA 6018-4	6 ... 18 GHz	4 / 5	36 / 39 ±2	20 / 20	150	3 HU, 350 mm	11	
BLMA 6018-7	6 ... 18 GHz	7 / 8	38.5 / 42 ±2	20 / 20	200	3 HU, 350 mm	12	
BLMA 6018-10	6 ... 18 GHz	10 / 11	40 / 43 ±2	20 / 20	250	3 HU, 350 mm	14	
BLMA 6018-20	6 ... 18 GHz	20 / 22	43 / 46 ±2	12 / 20	350	3 HU, 550 mm	18	
BLMA 6018-35	6 ... 18 GHz	35 / 40	45.4 / 49 ±3	15 / 20	800	3 HU, 630 mm	28	
BLMA 6018-60	6 ... 18 GHz	60 / 70	47.5 / 51 ±3	15 / 20	1600	6 HU, 630 mm	50	
BLMA 8012-1	8 ... 12 GHz	1 / 1.2	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 8012-2	8 ... 12 GHz	2 / 2.3	33 / 35 ±2	20 / 20	70	3 HU, 350 mm	11	
BLMA 8012-5	8 ... 12 GHz	5 / 6	37 / 39 ±2	20 / 20	90	3 HU, 350 mm	12	
BLMA 8012-6	8 ... 12 GHz	6 / 7	37.8 / 40 ±2	20 / 20	100	3 HU, 350 mm	12	
BLMA 8012-8	8 ... 12 GHz	8 / 9	39 / 41 ±2	20 / 20	125	3 HU, 350 mm	12	
BLMA 8012-12	8 ... 12 GHz	12 / 15	40.8 / 43 ±2	20 / 20	150	3 HU, 350 mm	12	
BLMA 8012-25	8 ... 12 GHz	25 / 28	44 / 46 ±2	15 / 20	350	3 HU, 350 mm	14	
BLMA 8012-35	8 ... 12 GHz	35 / 40	45.4 / 48 ±2	15 / 20	500	3 HU, 550 mm	18	
BLMA 8012-50	8 ... 12 GHz	50 / 55	47 / 50 ±3	15 / 20	1600	5 HU, 630 mm	50	
BLMA 8018-0.5	8 ... 18 GHz	0.5 / 0.6	27 / 29 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 8018-1	8 ... 18 GHz	1 / 1.2	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 8018-1.5	8 ... 18 GHz	1.5 / 1.7	31.8 / 34 ±2	20 / 20	75	3 HU, 350 mm	10	
BLMA 8018-2	8 ... 18 GHz	2 / 2.3	33 / 35 ±2	18 / 20	75	3 HU, 350 mm	10	
BLMA 8018-5	8 ... 18 GHz	5 / 6	37 / 39 ±2	15 / 20	150	3 HU, 350 mm	12	
BLMA 8018-7	8 ... 18 GHz	7 / 8	38.5 / 41 ±2	20 / 20	200	3 HU, 350 mm	12	
BLMA 8018-8	8 ... 18 GHz	8 / 9	39 / 41 ±2	20 / 20	200	3 HU, 350 mm	12	
BLMA 8018-10	8 ... 18 GHz	10 / 11	40 / 43 ±3	15 / 20	200	3 HU, 350 mm	12	
BLMA 8018-20	8 ... 18 GHz	20 / 22	43 / 46 ±3	15 / 20	350	3 HU, 550 mm	14	
BLMA 8018-35	8 ... 18 GHz	35 / 40	45.4 / 50 ±4	15 / 20	800	3 HU, 630 mm	28	
BLMA 1218-1	12 ... 18 GHz	1 / 1.2	30 / 32 ±2	20 / 20	60	3 HU, 350 mm	10	
BLMA 1218-2	12 ... 18 GHz	2 / 2.3	33 / 35 ±2	20 / 20	60	3 HU, 350 mm	11	
BLMA 1218-3	12 ... 18 GHz	3 / 3.5	34.8 / 37 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 1218-5	12 ... 18 GHz	5 / 6	37 / 39 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 1218-7	12 ... 18 GHz	7 / 8	38.5 / 41 ±2	20 / 20	200	3 HU, 350 mm	12	
BLMA 1218-8	12 ... 18 GHz	8 / 9	39 / 41 ±2	20 / 20	250	3 HU, 350 mm	13	
BLMA 1218-10	12 ... 18 GHz	10 / 11	40 / 42 ±2	15 / 20	250	3 HU, 350 mm	13	
BLMA 1218-20	12 ... 18 GHz	20 / 22	43 / 45 ±2	15 / 20	350	3 HU, 350 mm	14	
BLMA 1826-0.25	18 ... 26.5 GHz	0.25 / 0.28	24 / 26 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 1826-0.5	18 ... 26.5 GHz	0.5 / 0.6	27 / 29 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 1826-0.7	18 ... 26.5 GHz	0.7 / 0.8	28.5 / 31 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 1826-1	18 ... 26.5 GHz	1 / 1.1	30 / 32 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 1826-2	18 ... 26.5 GHz	2 / 2.2	33 / 35 ±2	20 / 20	75	3 HU, 350 mm	11	
BLMA 1826-4	18 ... 26.5 GHz	4 / 4.4	36 / 39 ±3	20 / 20	120	3 HU, 350 mm	11	
BLMA 1840-0.1	18 ... 40 GHz	0.1 / 0.12	20 / 22 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 1840-0.2	18 ... 40 GHz	0.2 / 0.22	23 / 25 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 1840-0.25	18 ... 40 GHz	0.25 / 0.3	24 / 26 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 1840-0.4	18 ... 40 GHz	0.4 / 0.45	26 / 28 ±2	20 / 20	50	3 HU, 350 mm	11	
BLMA 1840-0.7	18 ... 40 GHz				75	3 HU, 350 mm	12	
	18 ... 37 GHz	0.7 / 0.8	28.5 / 31 ±2	20 / 20				
	37 ... 40 GHz	0.5 / 0.6	27 / 29 ±2	20 / 20				
BLMA 2640-0.1	26.5 ... 40 GHz	0.1 / 0.12	20 / 22 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2640-0.2	26.5 ... 40 GHz	0.2 / 0.23	23 / 25 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2640-0.4	26.5 ... 40 GHz	0.4 / 0.45	26 / 28 ±2	20 / 20	50	3 HU, 350 mm	10	
BLMA 2640-0.8	26.5 ... 40 GHz				50	3 HU, 350 mm	10	
	26.5 ... 37 GHz	0.8 / 1	29 / 33 ±4	20 / 20				
	37 ... 40 GHz	0.5 / 0.6	27 / 31 ±4	20 / 20				
BLMA 2640-2	26.5 ... 40 GHz	2 / 2.1	33 / 37 ±4	20 / 20	75	3 HU, 350 mm	11	

## TWAL

## TWT Amplifiers

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions (H, D)	Weight kg
						19"-System	
TWAL 0103-250	1 ... 2.5 GHz	250 / 300	54 / 62 ±7.5	4 / 12	3000	5 HU, 660 mm	48
TWAL 0103-320	1 ... 2.5 GHz	320 / 350	55 / 63 ±7.5	3 / 10	3500	5 HU, 660 mm	48
TWAL 0103-500	1 ... 2.5 GHz	500 / 600	54 / 62 ±7.5	2 / 10	4000	14 HU, 660 mm	140
TWAL 0103-500E	1 ... 2.5 GHz	500 / 600	57 / 62 ±5	2 / 10	3500	4 HU, 730 mm	40
TWAL 0103-1000	1 ... 2.5 GHz	1000 / 1100	50 / 60 ±10	8 / 20	12000	32 HU, 800 mm	340
TWAL 0103-1000E	1 ... 2.5 GHz	1000 / 1100	54 / 61.5 ±7.5	3 / 10	7000	5 HU, 800 mm	100
TWAL 0118-30/20D	1 ... 18 GHz				500	4 HU, 630 mm	32
	1 ... 2 GHz	30 / 35	44.8 / 47 ±2	20 / 20			
	2 ... 6 GHz	20 / 25	43 / 45 ±2	20 / 20			
	6 ... 18 GHz	20 / 25	43 / 48 ±5	0 / 5			
TWAL 0204-250E	2 ... 4 GHz	250 / 300	54 / 62 ±7.5	6 / 15	3000	4 HU, 730 mm	32
TWAL 0206-200E	2 ... 6 GHz	200 / 220	53 / 60 ±7.5	3 / 10	2500	4 HU, 730 mm	32
TWAL 0208-250	2 ... 8 GHz	250 / 300	54 / 62 ±7.5	1 / 5	3000	5 HU, 660 mm	50
TWAL 0208-300	2 ... 8 GHz	300 / 350	54.8 / 63 ±7.5	0 / 4	3500	5 HU, 660 mm	50
TWAL 0208-500E	2.5 ... 7.5 GHz	500 / 600	57 / 62 ±5	5 / 10	3000	4 HU, 630 mm	40
TWAL 0208-1000E	2.5 ... 7.5 GHz	1000 / 1100	54 / 61.5 ±7.5	5 / 10	6000	12 HU, 800 mm	100
TWAL 0208-250E	2.5 ... 8 GHz	250 / 300	54 / 62 ±7.5	3 / 10	2500	4 HU, 630 mm	38
TWAL 0208-500	2.5 ... 8 GHz	500 / 600	54 / 62 ±7.5	5 / 10	6000	14 HU, 660 mm	140
TWAL 0208-1000	2.5 ... 8 GHz	1000 / 1100	50 / 58 ±7.5	10 / 15	12000	32 HU, 800 mm	340
TWAL 0408-20	4 ... 8 GHz	20 / 30	43 / 48 ±5	5 / 20	400	3 HU, 550 mm	20
TWAL 0408-250E	4 ... 8 GHz	250 / 300	54 / 62 ±7.5	6 / 15	3000	4 HU, 730 mm	30
TWAL 0410-70	4 ... 10 GHz	70 / 120	50 / 56 ±6	3 / 10	1500	3 HU, 610 mm	33
TWAL 0410-170	4 ... 10 GHz	170 / 250	50 / 56 ±6	3 / 10	1500	3 HU, 610 mm	33
TWAL 0412-20	4 ... 12 GHz	20 / 40	43 / 51 ±4	0 / 6	500	3 HU, 550 mm	18
TWAL 0418-20	4 ... 18 GHz	20 / 40	43 / 48 ±7.5	0 / 5	600	3 HU, 550 mm	18
TWAL 0418-30E	4 ... 18 GHz				800	3 HU, 550 mm	16
	4 ... 4.5 GHz	25 / 30	44 / 54 ±10	2 / 1			
	4.5 ... 6 GHz	30 / 35	44.8 / 55 ±10	1 / 1			
	6 ... 16 GHz	70 / 90	48.5 / 59 ±10	4 / 15			
	16 ... 18 GHz	30 / 35	44.8 / 55 ±10	20 / 20			
TWAL 0418-40E	4 ... 18 GHz				800	3 HU, 550 mm	16
	4 ... 4.5 GHz	30 / 35	44 / 54 ±10	2 / 1			
	4.5 ... 6 GHz	40 / 45	45 / 55 ±10	1 / 1			
	6 ... 15 GHz	70 / 90	49 / 59 ±10	4 / 15			
	15 ... 18 GHz	40 / 45	45 / 55 ±10	20 / 20			
TWAL 0418-100E	4.5 ... 18 GHz	100 / 120	50 / 60 ±10	0 / 5	800	3 HU, 550 mm	18
TWAL 0618-20	6 ... 18 GHz	20 / 30	43 / 48 ±5	5 / 20	400	3 HU, 550 mm	20
TWAL 0618-200E	6 ... 18 GHz	200 / 250	53 / 61 ±7.5	6 / 15	3000	4 HU, 630 mm	33
TWAL 0618-300E	6 ... 18 GHz	300 / 350	54.8 / 62.5 ±7.5	5 / 10	3500	4 HU, 630 mm	38
TWAL 0810-1500	8 ... 10 GHz	1500 / 1800	52 / 62 ±10	10 / 20	7000	13 HU, 700 mm	90
TWAL 0812-20	8 ... 12 GHz	20 / 30	43 / 48 ±5	5 / 20	400	3 HU, 550 mm	20
TWAL 0812-1000	8 ... 12 GHz	1000 / 1200	50 / 60 ±10	10 / 20	7000	13 HU, 700 mm	90

**TWAL****TWT Amplifiers**

Model	Frequency Range	Output Power $P_N$ min / typ W	Gain min / typ dB	Harmonics 2nd / 3rd dBc	Line Power VA	Dimensions	Weight
						(H, D)	19"-System
TWAL 0818-20	8 ... 18 GHz	20 / 30	43 / 51 ±7.5	10 / 20	400	3 HU, 550 mm	20
TWAL 0818-50/35	8 ... 18 GHz				400	3 HU, 550 mm	22
	8 ... 15 GHz	50 / 60	47 / 55 ±7.5	5 / 20			
	15 ... 18 GHz	35 / 40	43 / 51 ±7.5	5 / 20			
TWAL 0818-200E	8 ... 18 GHz	200 / 250	53 / 61 ±7.5	6 / 15	2000	4 HU, 730 mm	33
TWAL 0818-250	8 ... 18 GHz	250 / 300	54 / 62 ±7.5	8 / 20	1500	3 HU, 610 mm	33
TWAL 0818-250E	8 ... 18 GHz	250 / 300	54 / 62 ±7.5	7 / 15	2000	4 HU, 630 mm	32
TWAL 0818-320	8 ... 18 GHz	320 / 350	55 / 63 ±7.5	6 / 18	1750	3 HU, 610 mm	33
TWAL 0818-500	8 ... 18 GHz	500 / 550	54 / 62 ±7.5	8 / 20	3000	7 HU, 700 mm	85
TWAL 0818-500E	8 ... 18 GHz	500 / 550	57 / 65 ±7.5	15 / 20	3000	8 HU, 630 mm	55
TWAL 0818-1000	8 ... 18 GHz	1000 / 1100	50 / 60 ±7.5	10 / 20	6000	18 HU, 700 mm	270
TWAL 0818-1000E	8 ... 18 GHz	1000 / 1100	60 / 68 ±7.5	15 / 20	6000	21 HU, 630 mm	120
TWAL 1012-1000	10 ... 12 GHz	1000 / 1200	50 / 60 ±10	10 / 20	7000	13 HU, 700 mm	90
TWAL 1218-20	12 ... 18 GHz	20 / 40	43 / 48 ±5	5 / 20	400	3 HU, 550 mm	20
TWAL 1823-200E	18 ... 23 GHz	200 / 220	53 / 58 ±5	15 / 20	2200	6 HU, 730 mm	35
TWAL 1826-40	18 ... 26.5 GHz	40 / 60	46 / 52 ±6	20 / 20	1200	3+5 HU, 610 mm	41
TWAL 1826-120	18 ... 26.5 GHz	120 / 150	50.8 / 57 ±6	20 / 20	750	6 HU, 630 mm	45
TWAL 1840-40E	18 ... 40 GHz	40 / 60	46 / 54 ±7.5	7 / 15	750	4 HU, 630 mm	27
TWAL 2640-40	26 ... 40 GHz	40 / 60	46 / 52 ±6	20 / 20	1200	3+5 HU, 610 mm	41
TWAL 2640-120	26 ... 40 GHz	120 / 150	50.8 / 57 ±6	20 / 20	750	6 HU, 630 mm	38
TWAL 2731-100E	27 ... 31 GHz	100 / 120	50 / 55 ±5	12 / 15	1250	6 HU, 730 mm	35

## EMI Preamplifiers

## Amplifiers + Antennas

Model	Frequency Range	Output Power $P_N$ min dBm	Gain min / typ dB	Noise Figure dB	Dimensions (B, H, D) mm	Weight kg	BPA / TWAP Pulsed Amplifiers	EMI Preamplifiers	TWAL Travelling Wave Tube	BLMA Solid State	Cellular Bands Solid State	BLWA Solid State	BTA Broadband Hybrid	BSA Solid State
BLMA 0118-A	1 ... 18 GHz	+10	18 / 21 ±3	2.5	93 x 95 x 208	1.5								
BLMA 0118-BT	3 ... 18 GHz 1)	+3	44 / 48 ±4	3.2	93 x 95 x 208	1.5								
BLMA 0118-M	1 ... 18 GHz	+4	45 / 49 ±4	2.5	93 x 95 x 208	1.5								
BLMA 0118-1A	1 ... 18 GHz	+10	30 / 32 ±2	2.6	93 x 95 x 208	1.5								
BLMA 0118-1ABT	3 ... 18 GHz 1)	+9	28 / 32 ±2	3.3	93 x 95 x 208	1.5								
BLMA 0118-1BT	3 ... 18 GHz 1)	+9	36 / 39 ±3	3.2	93 x 95 x 208	1.5								
BLMA 0118-1M	1 ... 18 GHz	+10	38 / 41 ±3	2.5	93 x 95 x 208	1.5								
BLMA 0118-2M	1 ... 18 GHz	+10	38 / 41 ±3	2.5	93 x 95 x 208	1.5								
BLMA 0118-2A	1 ... 18 GHz	+5	29 / 31 ±2	2.8	93 x 95 x 208	1.5								
BLMA 0118-3A	1 ... 18 GHz	+8	30 / 32 ±2	3	93 x 95 x 208	1.5								
BLMA 0118-4A	1 ... 18 GHz	+8	40 / 42 ±2	3	93 x 95 x 208	1.5								
BLMA 0118-5A	1 ... 18 GHz	+8	50 / 52 ±2	3	93 x 95 x 208	1.5								
BLMA 1826-1M	18 ... 26 GHz	+10	40 / 42 ±2	2.5	93 x 65 x 206	1								
BLMA 1826-2M	18 ... 26 GHz	+10	30 / 32 ±2	2.5	93 x 65 x 206	1								
BLMA 1826-3A	18 ... 26 GHz	+10	30 / 32 ±2	3	93 x 65 x 206	1								
BLMA 1826-4A	18 ... 26 GHz	+10	40 / 42 ±2	3	93 x 65 x 206	1								
BLMA 1826-5A	18 ... 26 GHz	+10	50 / 52 ±2	3	93 x 65 x 206	1								
BLMA 1840-1M	18 ... 40 GHz	+5	23 / 26 ±2.5	2.7	93 x 65 x 206	1								
BLMA 1840-1A	18 ... 40 GHz	+5	23 / 26 ±2.5	3	93 x 65 x 206	1								
BLMA 1840-2A	18 ... 40 GHz	+5	23 / 26 ±2.5	3.5	93 x 65 x 206	1								
BLMA 1840-3A	18 ... 40 GHz	+5	23 / 26 ±2.5	5	93 x 65 x 206	1								
BLMA 2640-M	26 ... 40 GHz	+5	40 / 43 ±3	2.7	93 x 65 x 206	1								
BLMA 2640-1M	26 ... 40 GHz	+5	38 / 41 ±3	3	93 x 65 x 206	1								
BLMA 2640-1A	26 ... 40 GHz	+6	20 / 22 ±2	4.5	93 x 65 x 206	1								
BLMA 2640-3A	26 ... 40 GHz	+10	30 / 32 ±2	4	93 x 65 x 206	1								
BLMA 2640-4A	26 ... 40 GHz	+10	40 / 42 ±2	4	93 x 65 x 206	1								
BLMA 2640-5A	26 ... 40 GHz	+10	50 / 52 ±2	4	93 x 65 x 206	1								

**BLPA / BPA****Pulsed Solid State Amplifiers**

Model	Frequency Range	Output Power $P_P$ min / typ W	Gain typ dB	Harmonics 2nd / 3rd dBc	Line Power W	Dimensions		Weight kg	
						Dimensions (H, D)			
						19"-System			
BLPA 3050-50	0.3 ... 0.5 GHz	50 / 60	47 ±1.5	40 / 40	80	3 HU, 350 mm	25		
BLPA 3050-100	0.3 ... 0.5 GHz	100 / 115	50 ±1.5	40 / 40	150	3 HU, 350 mm	25		
BLPA 3050-250	0.3 ... 0.5 GHz	250 / 280	54 ±1.5	40 / 40	250	4 HU, 550 mm	30		
BLPA 3050-500	0.3 ... 0.5 GHz	500 / 550	57 ±1.5	40 / 40	350	4 HU, 550 mm	40		
BLPA 3050-1000	0.3 ... 0.5 GHz	1000 / 1100	60 ±1.5	40 / 40	500	4 HU, 550 mm	45		
BLPA 3050-2000	0.3 ... 0.5 GHz	2000 / 2200	63 ±1.5	40 / 40	750	5 HU, 550 mm	55		
BLPA 3050-4000	0.3 ... 0.5 GHz	4000 / 4400	66 ±1.5	40 / 40	1000	7 HU, 630 mm	75		
BLPA 3050-7000	0.3 ... 0.5 GHz	7000 / 7500	68 ±1.5	40 / 40	2000	12 HU, 630 mm	115		
BLPA 4010-1200	400 ... 1000 MHz	1200 / 1400	60.8 / 63 ±2	20 / 20	1000	8 HU, 630 mm	75		
BLPA 4010-2000	400 ... 1000 MHz	2000 / 2200	63 / 65 ±2	20 / 20	1500	15 HU, 630 mm	145		
BLPA 4010-3500	400 ... 1000 MHz	3500 / 3800	65.4 / 68 ±2	20 / 20	1000	24 HU, 630 mm	195		
BPA 0913-100	950 ... 1250 MHz	100 / 5	50 ±2.5	40 / 40	300	3 HU, 350 mm	15		
BPA 0913-500	950 ... 1250 MHz	500 / 5	57 ±2.5	40 / 40	300	4 HU, 550 mm	25		
BPA 0913-1000	950 ... 1250 MHz	1000 / 5	60 ±2.5	40 / 40	300	3 HU, 550 mm	30		
BPA 0913-4000	950 ... 1250 MHz	4000 / 5	66 ±2.5	40 / 40	1200	12 HU, 550 mm	120		
BPA 0913-7500	950 ... 1250 MHz	7500 / 5	68 ±2.5	40 / 40	2500	24 HU, 800 mm	220		
BPA 1114-900	1.15 ... 1.45 GHz	900 / 10	59 ±2.5	30 / 30	500	3 HU, 630 mm	22		
BPA 1214-100	1.2 ... 1.4 GHz	100 / 10	50 ±2.5	30 / 30	200	3 HU, 350 mm	15		
BPA 1214-500	1.2 ... 1.4 GHz	500 / 10	57 ±2.5	30 / 30	250	3 HU, 550 mm	18		
BPA 1214-1000	1.2 ... 1.4 GHz	1000 / 10	60 ±2.5	30 / 30	500	3 HU, 630 mm	22		
BPA 1214-1800	1.2 ... 1.4 GHz	1800 / 10	62.6 ±2.5	30 / 30	1000	4 HU, 630 mm	35		
BPA 1214-3000	1.2 ... 1.4 GHz	3000 / 10	64.8 ±2.5	30 / 30	1500	6 HU, 630 mm	40		
BPA 1214-5000	1.2 ... 1.4 GHz	5000 / 10	67 ±2.5	30 / 30	3000	8 HU, 630 mm	60		
BPA 2427-25	2.4 ... 2.7 GHz	25 / 10	44 ±2.5	40 / 40	125	3 HU, 350 mm	15		
BPA 2427-50	2.4 ... 2.7 GHz	50 / 10	47 ±2.5	40 / 40	200	3 HU, 350 mm	15		
BPA 2427-100	2.4 ... 2.7 GHz	100 / 10	50 ±2.5	40 / 40	350	3 HU, 350 mm	15		
BPA 2427-500	2.4 ... 2.7 GHz	500 / 10	57 ±2.5	40 / 40	1000	4 HU, 550 mm	25		
BPA 2427-1000	2.4 ... 2.7 GHz	1000 / 10	60 ±2.5	40 / 40	1700	4 HU, 550 mm	30		
BPA 2731-25	2.7 ... 3.1 GHz	25 / 10	44 ±2.5	40 / 40	100	3 HU, 350 mm	15		
BPA 2731-50	2.7 ... 3.1 GHz	50 / 10	47 ±2.5	40 / 40	150	3 HU, 350 mm	15		
BPA 2731-100	2.7 ... 3.1 GHz	100 / 10	50 ±2.5	40 / 40	250	3 HU, 350 mm	15		
BPA 2731-300	2.7 ... 3.1 GHz	300 / 10	54.8 ±2.5	40 / 40	500	3 HU, 550 mm	20		
BPA 2731-500	2.7 ... 3.1 GHz	500 / 10	57 ±2.5	40 / 40	500	3 HU, 550 mm	25		
BPA 2731-1000	2.7 ... 3.1 GHz	1000 / 10	60 ±2.5	40 / 40	1000	4 HU, 550 mm	30		

Model	Frequency Range	Output Power $P_P$ min / Duty W / %	Gain typ dB	Harmonics 2nd / 3rd dBc typ	Line Power VA	Dimensions (H, D) 19"-System	Weight kg
TWAP 0115-12000	1 ... 1.5 GHz	12000 / 1	75 ±5	20 / 20	1200	4 HU, 730 mm	38
TWAP 0102-4000	1 ... 2 GHz	4000 / 6	71.5 ±7.5	10 / 10	2500	8 HU, 630 mm	60
TWAP 0102-7000	1 ... 2 GHz	7000 / 6	73.5 ±7.5	10 / 10	5000	18 HU, 800 mm	150
TWAP 0103-1000	1 ... 2.5 GHz	1000 / 6	67.5 ±7.5	5 / 8	730	4 HU, 730 mm	35
TWAP 0103-2000	1 ... 2.5 GHz	2000 / 6	70.5 ±7.5	7 / 15	1200	4 HU, 730 mm	42
TWAP 0103-3500	1 ... 2.5 GHz	3500 / 6	72 ±7.5	7 / 15	2500	12 HU, 800 mm	125
TWAP 0103-6000	1 ... 2.5 GHz	6000 / 6	74 ±7.5	7 / 15	5000	24 HU, 800 mm	250
TWAP 1113-20000	1.1 ... 1.3 GHz	20000 / 1	80 ±7.5	20 / 20	2750	12 HU, 800 mm	115
TWAP 1115-2000	1.1 ... 1.5 GHz	2000 / 4	70.5 ±7.5	20 / 20	1000	4 HU, 830 mm	40
TWAP 1502-8000	1.5 ... 2 GHz	8000 / 1	73 ±5	20 / 20	1000	4 HU, 730 mm	38
TWAP 0204-2000	2 ... 4 GHz	2000 / 6	70.5 ±7.5	4 / 10	1200	4 HU, 700 mm	35
TWAP 0204-5000	2 ... 4 GHz	5000 / 6	74.5 ±7.5	3 / 8	2800	4 HU, 730 mm	35
TWAP 0204-9000	2 ... 4 GHz	9000 / 6	77 ±7.5	7 / 12	6000	12 HU, 800 mm	100
TWAP 0208-1500	2.5 ... 8 GHz	1500 / 6	69.3 ±7.5	2 / 5	1000	4 HU, 700 mm	35
TWAP 0208-2000	2.5 ... 8 GHz	2000 / 6	70.5 ±7.5	2 / 5	1200	4 HU, 700 mm	35
TWAP 0208-3000	2.5 ... 8 GHz	3000 / 6	74 ±7.5	10 / 10	1200	12 HU, 800 mm	80
TWAP 0304-9000	2.9 ... 4 GHz	9000 / 4	77.5 ±7.5	6 / 15	2000	4 HU, 730 mm	35
TWAP 0408-1800	4 ... 8 GHz	1800 / 6	70 ±7.5	7 / 12	1200	4 HU, 630 mm	35
TWAP 0408-4000	4 ... 8 GHz	4000 / 6	73.5 ±7.5	4 / 10	2000	6 HU, 630 mm	35
TWAP 0408-7500	4 ... 8 GHz	7500 / 6	73 ±4	5 / 20	4000	12 HU, 800 mm	100
TWAP 0811-7000	8 ... 11 GHz	7000 / 5	76 / 83.5 ±7.5	8 / 15	2000	4 HU, 730 mm	38
TWAP 0812-2500	8 ... 12.4 GHz	2500 / 6	71.5 ±7.5	10 / 15	1500	4 HU, 630 mm	35
TWAP 0812-5000	8 ... 12.4 GHz				1600	4 HU, 630 mm	38
	8 ... 12 GHz	5000 / 6	74.5 ±7.5	10 / 20			
	12 ... 12.4 GHz	4000 / 6	73.5 ±7.5	10 / 20			
TWAP 0812-8000	8 ... 12.4 GHz	8000 / 6	76.5 ±7.5	15 / 20	4000	12 HU, 800 mm	100
TWAP 0818-1000	8 ... 18 GHz	1000 / 6	67.5 ±7.5	3 / 8	1200	4 HU, 630 mm	30
TWAP 0818-1500	8 ... 18 GHz	1500 / 6	69.5 ±7.5	7 / 15	1300	4 HU, 630 mm	32
TWAP 0818-2000	8 ... 18 GHz	2000 / 6	68 ±5	7 / 15	1300	4 HU, 630 mm	32
TWAP 0818-2500	8 ... 18 GHz	2500 / 6	71.5 ±7.5	7 / 15	2000	8 HU, 630 mm	50
TWAP 0818-3000	8 ... 18 GHz	3000 / 6	74 ±7.5	10 / 10	4000	8 HU, 800 mm	80
TWAP 1218-3500	12.4 ... 18 GHz	3500 / 6	71 ±5	15 / 15	1500	4 HU, 630 mm	35
TWAP 1218-6000	12.4 ... 18 GHz	6000 / 6	73 ±5	15 / 15	3000	12 HU, 800 mm	100



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