



Robust, Reliable & Rational

Company Presentation



AS9100D
CERTIFIED
ISO 9001
KSQ 9100:2018

May 2025

Technology
Partner



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Company Profile

Engineered to Outperform



2012	February	3Rwave established
	May	Registered as a venture company
2013	March	ISO9001 certified
	September	ISO14001 certified
	October	Registered as a partner company of KITECH
2016	September	A certified R&D Center Established
2017	January	Filter and Passive business launched
2018	October	RF Module business launched
2019	May	Registered as a Inno-Biz Company
2020	December	Certified as a Promising Exporting Small and Medium Enterprise by Ministry of SME
2021	November	Certified as a specialized company in materials, parts, equipment by KEIT
	December	Relocated to the new location in Seoul, Korea
2022	November	AS9100D Certified
2024	~	Presently holding 13 patents (Korea, USA & China) and 1 patent on pending



- Pursuing in Innovation, Quality and Commitment
- Specialized in designing and manufacturing RF devices and Modules
- Engineered by 25-year experienced engineers in design, manufacturing and troubleshooting

Major Instruments

Item	Model	Quantity	Remark
Vector Network Analyzer	E5071C	5	8.5GHz & 20GHz
	E8364C	2	50GHz
Power Meter	E4419B	1	
Signal Generator	83650B	1	50GHz
	E4433B	2	
Oscilloscope	MSO6052A	1	
Spectrum Analyzer	N9030A	1	50GHz
	E4407B	1	
Power Supply		8	
Electrical Cal Kit	N4431	1	8.5GHz, 4-Port
	85093	1	8.5GHz
	N4691B	1	20GHz

Design Software

Item	Quantity	Remark
HFSS	1	3D EM Simulation
ADS	1	Circuit Simulation
Altium	1	Automated Circuit Design
Solid Works	1	3D Mechanical Design
ZWCAD	10	2D Mechanical Design

Major Equipment

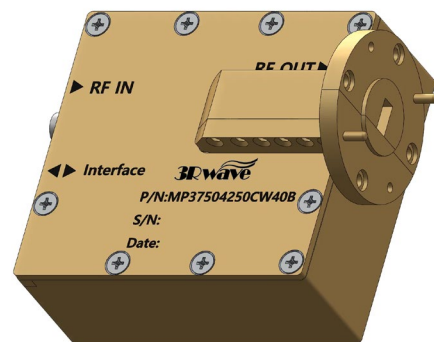
Item	Model	Quantity	Remark
Temp. and Humidity Chamber	TH-KH-180	1	
Temp. and Humidity Chamber	ESPEC	1	
Simple Vibration Test Machine	WE-V2	1	
Thermal Platform with Liquid CO2	SD49-E	1	
Automated Soldering Machine	R501DT	1	
Digital Hot Plate	GLMP-D3030	6	
Soldering Iron	FX-951	6	
1500V Power Supply	KMC-16	2	20000μF Capacity
Phase Control Power Supply	KMC-1620K	4	
Laser Marking Machine	FM20D	1	
Reel Packaging Machine	IMT-1620K	2	
Pneumatic Press	PR-0001	3	
Cooling Water Circulator	M-4/M-5	2	
Stereoscopic Microscope	SZX16	2	

Power Amplifiers and Low Noise Amplifiers

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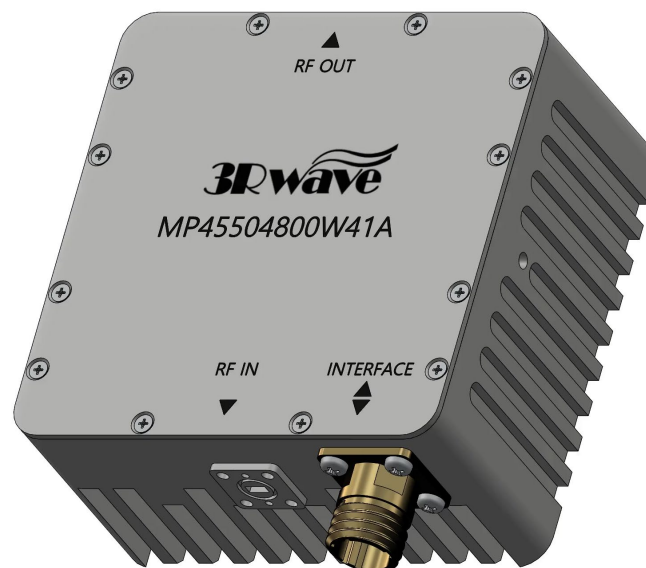


MP3504250CW40B



Q-Band Downlink SSPA
38dBm Output Power
For LEO Satellite

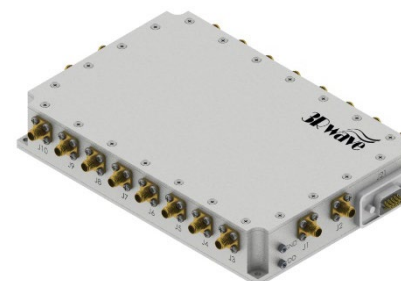
MP45504800W41A



V-Band uplink SSPA
41dBm Output Power
for Ground Station

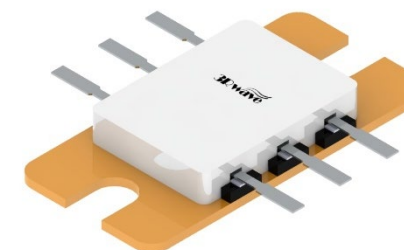
- Available from DC to V Band
- From Devices to Systems
- Capable to Develop Customized Broadband Device and Module

ML01001800S20JA



1~18GHz Broadband
Switch Amplifier

PD02000600P44A



2~6GHz 44dBm
Amplifier Device

Block Up/Down Converters

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MBDC02400900S30A

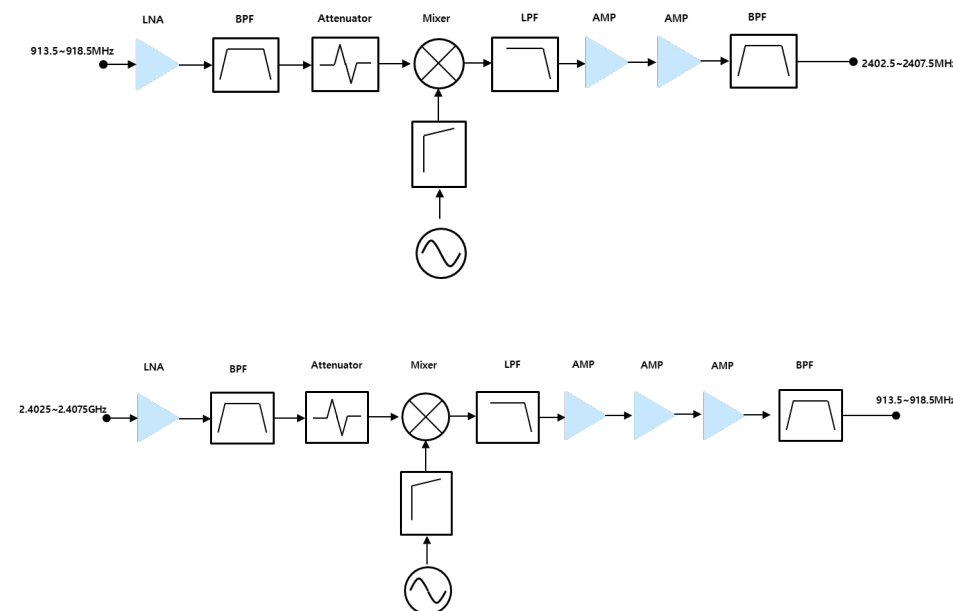


- Block Down Converter
- Input of 2.4GHz to Output 915.5MHz
- Output RF power of 30dBm

MBDU090002400S20A



- Block Up Converter
- Input of 915.5MHz to Output 2.4GHz
- Output RF power of 20dBm

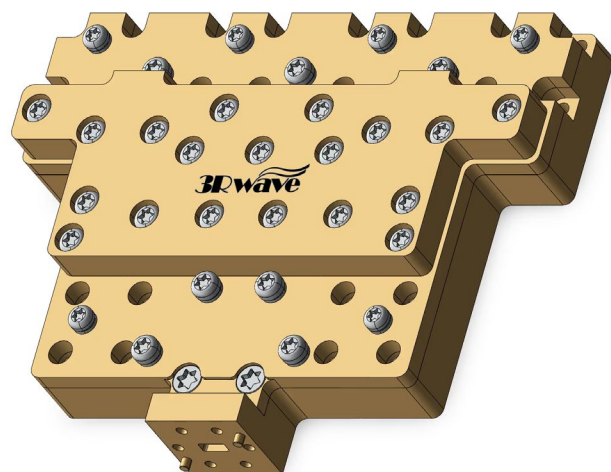


Waveguide Combiners

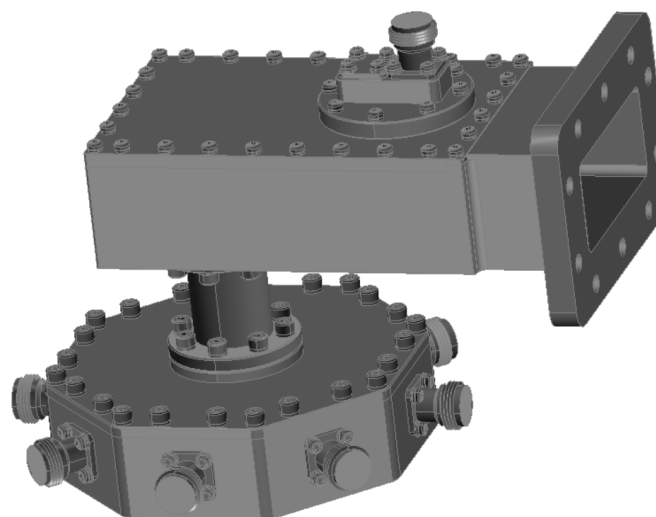
Engineered to Outperform



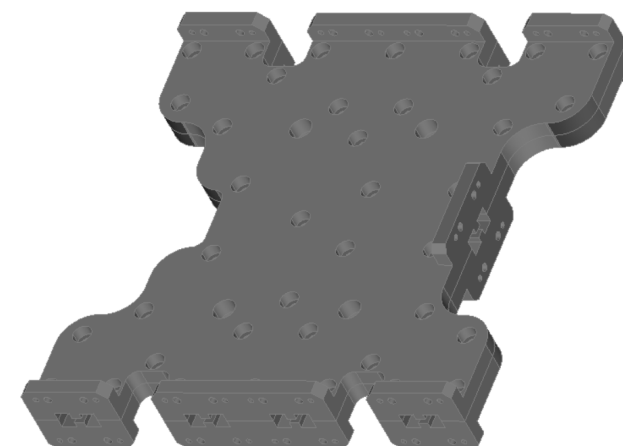
Q Band Magic-T Combiner



S Band Spatial Combiner



6~18GHz WG Combiner



4-Way Combiner

- Magic-Tee Structure
- Q Band
- Integrated Directional Coupler
- LEO Satellite Application

8-Way Combiner

- Spatial Combiner
- S Band
- Integrated Directional Coupler
- 4KW per each input Port

8-Way Combiner

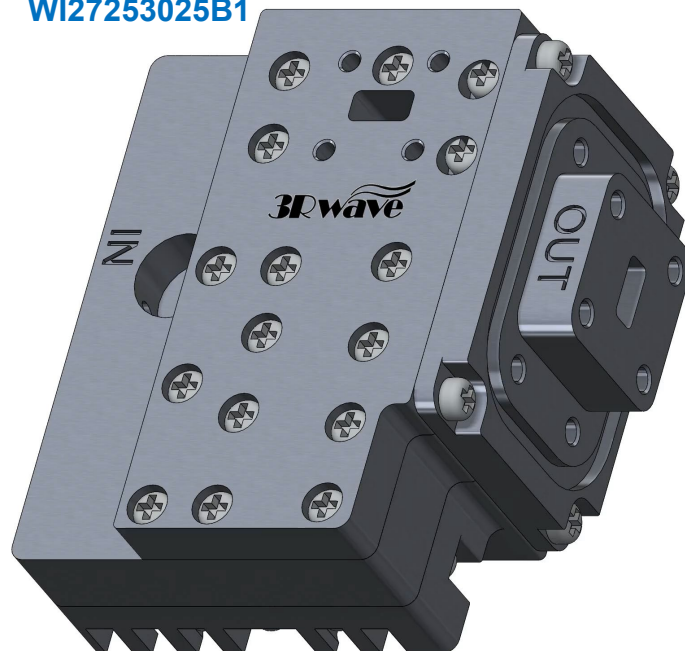
- Typical Wideband Combiner
- 6.5~18GHz
- WRD650
- 300W combined

Ka-Band Waveguide Products

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WI27253025B1

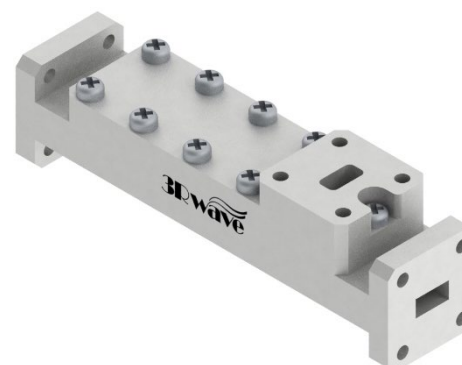


Waveguide Isolator with coupler
for Ka Band

Ka Band Specialty

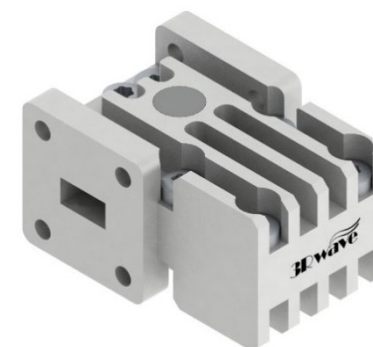
- Isolator / Circulator / Filters / Couplers
- Available From L Band to W Band
- Capable to Develop Customized Waveguide Assemblies

WDC27253025A30



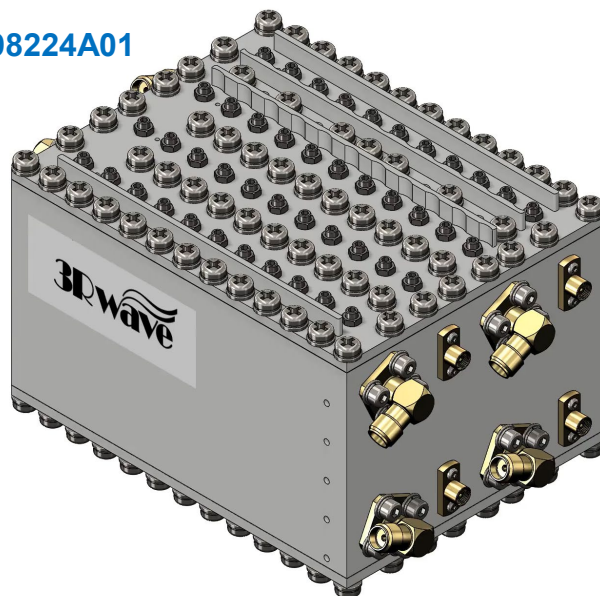
Waveguide Coupler
for Ka Band

WI27253025A1



Waveguide Isolator
for Ka Band

FAX198224A01



**S-Band Multi-Channel Duplexer
for LEO Satellite**

FLB0400554A01



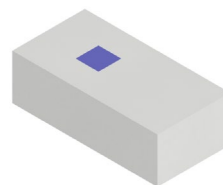
LC Filter for VHF

FCB228242A01



Ceramic Filter for S-Band

FT13501850A01



LTCC Filter for Ku-Band

FAB13001450W01



Waveguide Filter for Ku-Band

Available Filter Types

- Cavity Filters
- Waveguide Filters (Air filled & Ceramic filled)
- Ceramic Filters
- LC Filters
- LTCC Filters
- Microstrip Filters
- SSL (Suspended Stripline) Filters

Available Filter Configurations

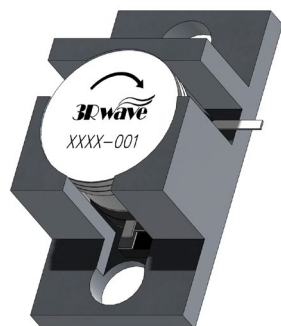
- BPF / LPF / HPF / BRF
- Duplexer / Diplexer / Multiplexer
- RF Modules based on Filters

Standard Dropin Isolators

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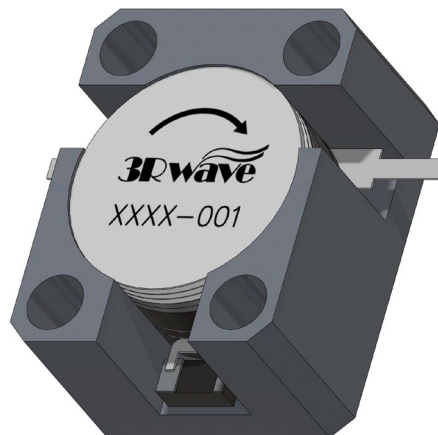


IPA14701540AA



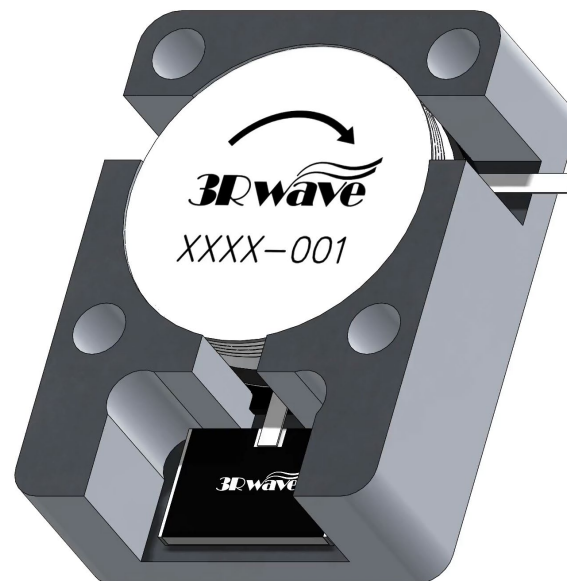
**0.25inch
Isolator**

IQA08001100AA



**0.4inch
Isolator**

IHA092096AC



0.75inch Isolator

Series	Product Width	Frequency Range
ITA Series	3.0 inch	0.15 GHz~
ISA Series	2.0 inch	0.2 GHz~
IBA Series	1.5 inch	0.3 GHz ~
IDA Series	1.25 inch	0.4 GHz~
IFA Series	1.0 inch	0.5 GHz ~
IHA Series	0.75 inch	0.6 GHz ~
IMA Series	0.5 inch	1.2 GHz ~
IQA Series	0.4 inch	2.0 GHz ~
IPA Series	0.25~0.3 inch	4.0 GHz ~

- Robust and Reliable
- Universal Standard Dimensions from 0.25 to 3.0 inch in Width
- Frequency Range available from 150MHz to 18GHz

Robust SMD Circulators

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CAB525555AA



5mm Circulator

CPB249269AA



7mm Circulator

CHB100110BS



18mm Circulator

Series	Product Diameter	Frequency Range
CHB Series	18mm	0.7 GHz~
CKB Series	14mm	1.2 GHz~
CQB Series	10mm	1.8 GHz ~
CPB Series	7mm	2.4 GHz~
CAB Series	5mm	3.0 GHz ~

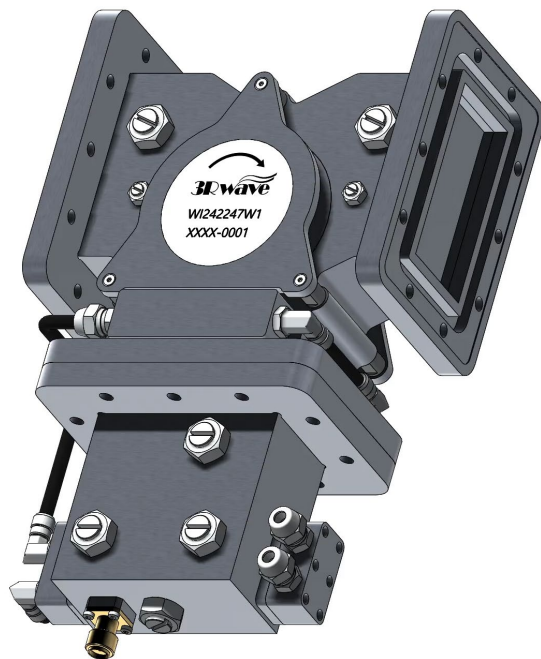
- Robust & Low Cost
- 5G MMU Base Station
- Radars for S-Band, C-Band, X-Band
- Patented in US, China and Korea

High power Circulators/Isolators

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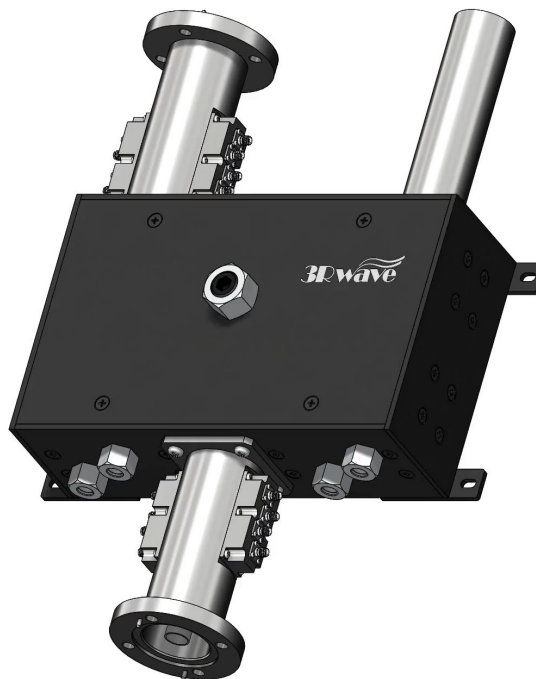


WI242247W1



**2.45GHz 6.5KW CW Isolator
for RF Energy System**

DVC032033WE1



**325MHz 6KW CW Circulator
for Particle Accelerator System**

Applications

- RF Energy Systems
- Particle Accelerator Systems
- Medical MRI Systems

Patents

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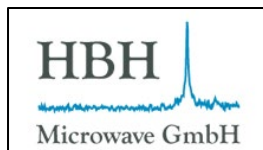
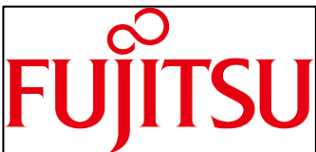
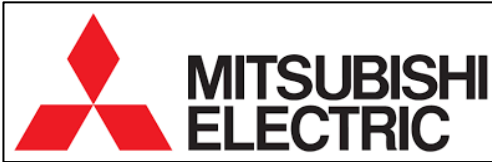
Country	Patent Registered	Patent Pending
Korea	10	1
USA	2	1
China	1	1

Major Customers

Engineered to Outperform



Official Distributor



Contact

Engineered to Outperform



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