

ABT-DMDF-ADBH



Dual Band Bias Tee Surge Arrestor, 698–960 MHz and 1700–2170 MHz, with interface types DIN Male and DIN Female

Product Classification

Product Type	Surge arrestor
Ordering Note	CommScope® standard product in the United States and Canada

General Specifications

Antenna Interface Signal	RF dc
BTS Interface Signal	RF dc Blocked
Injector Port Interface	SMA Female
Injector Port Interface Signal	dc
Inner Contact Plating	Silver
Interface	7-16 DIN Male
Interface 2	7-16 DIN Female
Interface 2 Port	BTS
Interface Port	Antenna
Outer Contact Plating	Trimetal
Pressurizable	No

Dimensions

Height	41.91 mm 1.65 in
Width	39.878 mm 1.57 in
Length	82.042 mm 3.23 in

Electrical Specifications

3rd Order IMD	-116 dBm
3rd Order IMD Test Method	Two +43 dBm carriers
Insertion Loss, typical	0.1 dB

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Average Power at Frequency	350.0 W @ 1,940 MHz 500.0 W @ 883 MHz
Connector Impedance	50 ohm
dc Injector Port Inner Contact Plating	Gold
Injector Port to Antenna Isolation, minimum	-70 dB
Lightning Surge Capability	10 times @ 6 kA
Lightning Surge Current Waveform	8/20 waveform
Operating Frequency Band	1710 – 2170 MHz 698 – 960 MHz
Peak Power, maximum	12 kW
Throughput Current, typical	1 A
Voltage Range	-30 V to 30 V

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
698–960 MHz	1.13	24.29
1710–2000 MHz	1.14	24
2000–2170 MHz	1.14	24

Mechanical Specifications

Attachment Durability	25 cycles
Coupling Nut Proof Torque	220 in lb 24.857 N-m
Coupling Nut Retention Force	1,000.85 N 225 lbf
Coupling Nut Retention Force Method	MIL-C-39012C-3.25, 4.6.22
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-16:9.5
Mechanical Shock Test Method	MIL-STD-202F, Method 213B, Test Condition C

Environmental Specifications

Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Average Power, Ambient Temperature	40 °C 104 °F
Corrosion Test Method	MIL-STD-202, Method 101, Test Condition B
Immersion Depth	1 m
Immersion Test Mating	Mated
Immersion Test Method	IEC 60529:2001, IP68

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Moisture Resistance Test Method	MIL-STD-202, Method 106
Thermal Shock Test Method	MIL-STD-202, Method 107, Test Condition A-1, Low Temperature -55 °C
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP66

Packaging and Weights

Weight, net 0.517 kg | 1.14 lb

Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



* Footnotes

Immersion Depth	Immersion at specified depth for 24 hours
Insertion Loss, typical	$0.05\sqrt{\text{freq}}$ (GHz) (not applicable for elliptical waveguide)