

ABT-DFDM-ADBH



Dual Band Bias Tee Surge Arrestor, 698–960 MHz and 1710–2170 MHz, with interface types DIN Female and DIN Male

Product Classification

Product Type Surge arrestor

General Specifications

Interface	7-16 DIN Female
Interface 2	7-16 DIN Male
Ordering Note	CommScope® standard product in the United States and Canada
Interface Port	Antenna
Interface 2 Port	BTS
Injector Port Interface	SMA Female
Antenna Interface Signal	dc RF
BTS Interface Signal	dc Blocked RF
Injector Port Interface Signal	dc

Electrical Specifications

Operating Frequency Band	1710 – 2000 MHz 2000 – 2170 MHz 698 – 960 MHz
3rd Order IMD	-116.0 dBm
3rd Order IMD Test Method	Two +43 dBm carriers
Average Power at Frequency	350.0 W @ 1,940 MHz 500.0 W @ 883 MHz
Connector Impedance	50 ohm
Injector Port to Antenna Isolation, minimum	-70 dB
Lightning Surge Capability	10 times @ 6 kA
Lightning Surge Current Waveform	8/20 waveform
Peak Power, maximum	12.00 kW
Insertion Loss, typical	0.10 dB

Mechanical Specifications

Attachment Durability	25 cycles
Coupling Nut Proof Torque	24.86 N-m 220.00 in lb
Coupling Nut Retention Force	1000.85 N 225.00 lbf
Coupling Nut Retention Force Method	MIL-C-39012C-3.25, 4.6.22
dc Injector Port Inner Contact Plating	Gold

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Inner Contact Plating	Silver
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-16:9.5
Outer Contact Plating	Trimetal
Pressurizable	No

Dimensions

Height	41.91 mm 1.65 in
Length	82.04 mm 3.23 in
Weight	0.52 kg 1.14 lb
Width	39.88 mm 1.57 in

Environmental Specifications

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
Mechanical Shock Test Method	MIL-STD-202F, Method 213B, Test Condition C
Moisture Resistance Test Method	MIL-STD-202, Method 106
Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
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

Power Supply

Throughput Current, typical	1 A
Voltage Range	-30 V to 30 V

Standard Conditions

Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
698–960 MHz	1.13	24.00
1710–2000 MHz	1.13	24.00
2000–2170 MHz	1.13	24.00

Regulatory Compliance/Certifications

Agency

ISO 9001:2015

Classification

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)