AV-927

Aviation Accessories

Diplexer

The AV-927 diplexer can be used with airborne multiband FM transceivers. The device is designed to provide two separate frequency band ports (typically going to a multiband transceiver) from a single port multiband antenna.

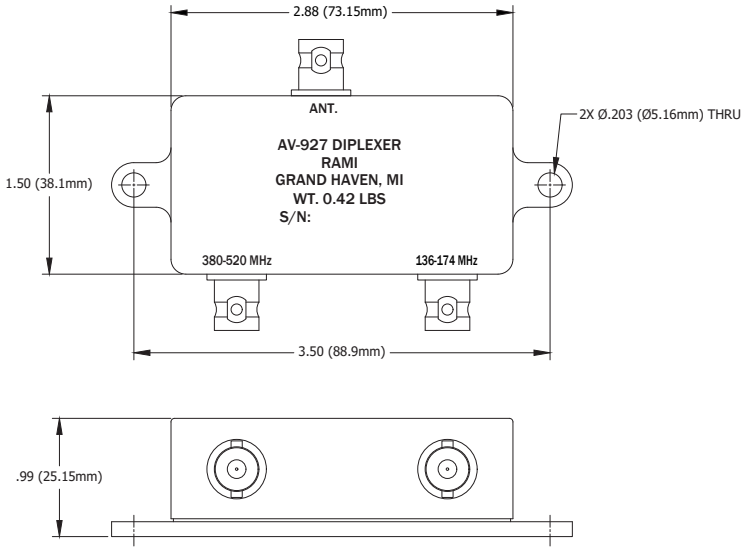


Product Specifications

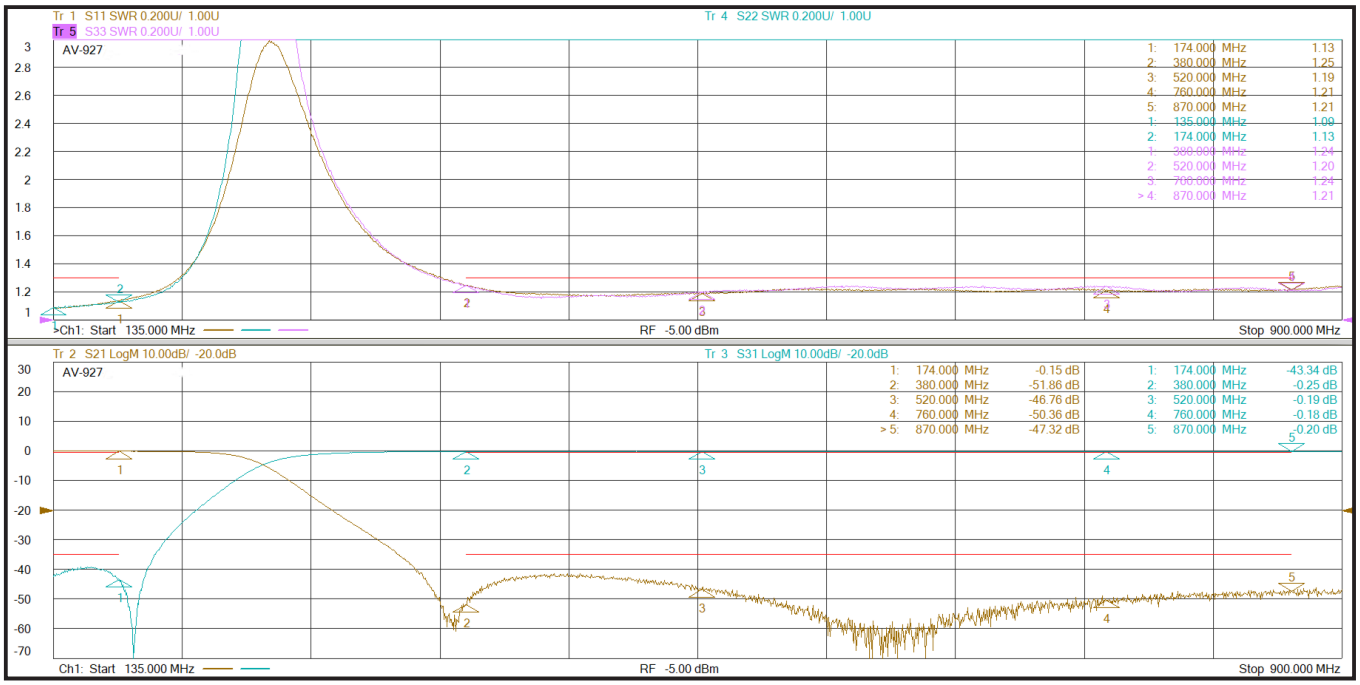
Application	Diplexer - Airborne Communications
Frequency	Port 1: Antenna Port 2: Radio 136-174 MHz Port 3: Radio 380-520 MHz
Impedance	50 Ohms Nominal
VSWR	1.3:1 Maximum
Insertion Loss	< 0.5 dB
Isolation	> 35 dB
Connector	BNC Female
RF Power Handling	10 Watts VHF 5 Watts UHF

Mechanical Specifications

Height	0.99"	25.15 mm
Weight	6.7 oz.	0.19 kg
Color	Black	



VSWR


Tr 1 S11 SWR 0.200U/ 1.00U
Tr 5 S33 SWR 0.200U/ 1.00U
Tr 4 S22 SWR 0.200U/ 1.00U
AV-927
1: 174.000 MHz 1.13
2: 380.000 MHz 1.25
3: 520.000 MHz 1.19
4: 760.000 MHz 1.21
5: 870.000 MHz 1.21
1: 135.000 MHz 1.09
2: 174.000 MHz 1.13
1: 380.000 MHz 1.24
2: 520.000 MHz 1.20
3: 700.000 MHz 1.24
> 4: 870.000 MHz 1.21
>Ch1: Start 135.000 MHz
RF -5.00 dBm
Stop 900.000 MHz
Tr 2 S21 LogM 10.00dB/ -20.0dB
Tr 3 S31 LogM 10.00dB/ -20.0dB
AV-927
1: 174.000 MHz -0.15 dB
2: 380.000 MHz -51.86 dB
3: 520.000 MHz -46.76 dB
4: 760.000 MHz -50.36 dB
> 5: 870.000 MHz -47.32 dB
1: 174.000 MHz -43.34 dB
2: 380.000 MHz -0.25 dB
3: 520.000 MHz -0.19 dB
4: 760.000 MHz -0.18 dB
5: 870.000 MHz -0.20 dB
Ch1: Start 135.000 MHz
RF -5.00 dBm
Stop 900.000 MHz

AV-927 INSTALLATION INSTRUCTIONS
Diplexer for General Aviation (Incomplete System)

TRIPLEXER PORTS

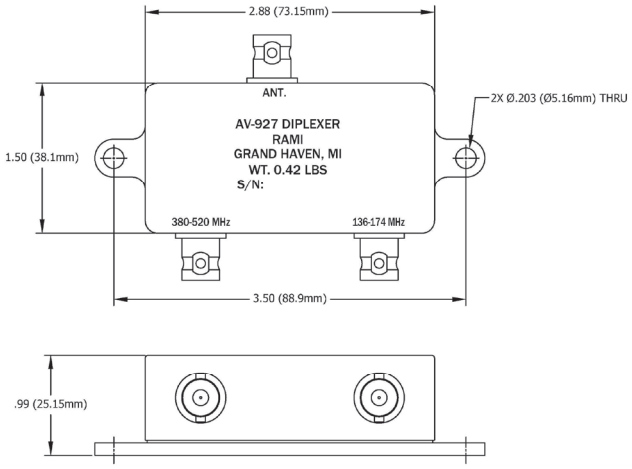
Antenna:	to AV-925 antenna or other suitable broadband antenna
136-174 MHz:	to 136-174 MHz transceiver antenna connector
380-520 MHz:	to 380-520 MHz transceiver antenna connector

INSTALLATION INSTRUCTIONS

1. The AV-927 requires use of RG-400 (or similar) 50 ohm transmission lines and male type BNC connectors (not supplied).

2. Determine suitable mounting location, drill mounting holes utilizing “mounting template” supplied and secure diplexer via mounting tabs (mounting hardware not supplied).

3. Route, secure and attach transmission lines from transceiver and antenna to appropriate ports on diplexer.



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