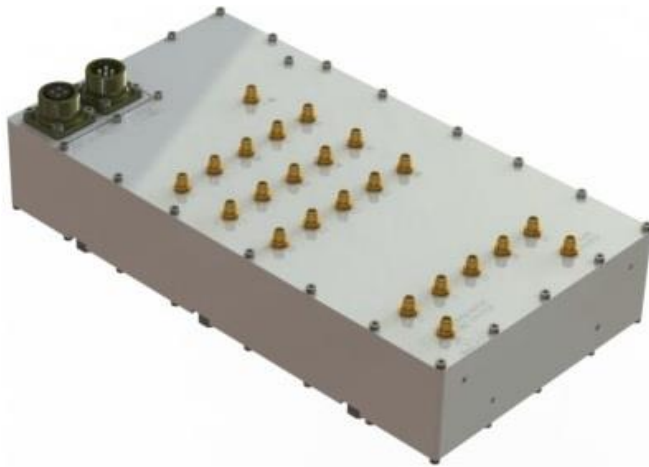


5-Channel Band Switch with Omni Amplifiers

1 – 3600 (6000) MHz

Product Code: DF-A0058



PRODUCT DESCRIPTION:

The DF-A0058 is a 3-band, 5-channel DF switch. It is particularly suitable for band selection and omni amplification on our DF-A0001, DF-A0007 and DF-A0038 direction finding antenna families. The switch is designed to be mounted inside the DF-A0057 switch housing which is fitted to the base of the DF antenna used.

The switch comprises five parallel channels, each with input power limiting, ESD protection, low noise amplifier and band switching, as well as a selectable noise source and external RF input for RF chain calibration.

When used with the DF-A0038 product variations, the integrated monitoring channel amplifier and power supply allows the mast head amplifier on the DF-A0038 to be powered by the switch and provides further amplification to compensate for downstream losses.

PRODUCT FEATURES:

- DF switch
 - 3-band, 5-channel switch
 - External injection mode chain calibration
 - Internal calibration noise source
 - High-speed solid state switching
- Omni amplifier
 - One channel omni amplifier
 - Low noise amplifier on input
 - DC injection to power upper stages
- Advanced input stages: limiters on each DF input to allow operation in adverse EMC environments
- Advanced output stages
 - Output amplifiers for long cables
 - Cable slope correction on amplifiers

SPECIFICATIONS:

Electrical: DF chain	
Frequency range	1 – 3600 MHz
Input VSWR	< 2.5:1
Input connectors	15 SMA female
Output connectors	5 SMA female
Noise figure	< 8 dB
Gain, < 100 MHz	8 ± 2 dB
Gain, 1 GHz	12 ± 2 dB
Gain, 3 GHz	18 ± 2 dB
Parallel channels	5
Bands per channel	3
Output IP3	30 dBm (below 1 GHz) 27 dBm (above 1 GHz)
Maximum input level	30 dBm CW, 45 dBm pulse
Electrical: cal chain	
Cal input connector	SMA female
Amplitude imbalance	< 2 dB
Phase imbalance	< 20°
Gain	-8 ± 6 dB
Max input level	20 dBm
Output level of internal noise source	+40 to +56 dB ENR
Electrical: omni amplifier	
Frequency range	1 – 6000 MHz
Input connector	1 x SMA female
Output connector	1 x SMA female
Input VSWR	< 3.0:1
DC injection	+15 V DC on omni coax Limited to 0.3 A
Noise figure	< 8 dB
Gain, < 100 MHz	8 ± 2 dB
Gain, 1 GHz	10 ± 3 dB
Gain, 3 GHz	16 ± 3 dB
Output IP3	30 dBm (below 1 GHz) 26 dBm (above 1 GHz)
Maximum input level	20 dBm
Electrical:	
Power supply	19 – 36 V DC, 1.4 A
Control	EIA-485 (RS-485)
Mechanical:	
Dimensions	317 mm x 168 mm x 80 mm
Total mass	3.2 kg
External material	Aluminium
Environmental: designed to meet the following specifications	
Temperature range*	-40 °C to +70 °C
Vibration	0.02 g ² /Hz, 2 – 300 Hz
Shock	40 G for 10 ms
Thermal shock	-20 °C to +70 °C
Water ingress rating	IP54

*Operational but startup only from -20 °C