

TRIPLEX DOWN CONVERTER ASSEMBLY

6-18 GHz block downconverter unit selectable
across 4 GHz sub-bands

TECHNICAL SPECIFICATIONS

Input Frequency Range	6-18 GHz
Sub-band Filters:	
Band A:	6-10 GHz
Band B:	10-14 GHz
Band C:	14-180 GHz
Out-of-band Rejection	60 dBc minimum
Transmission Gain (J1 to J2):	
J1 to J3:	0 dB ±2 dB
J1 to J4:	2 dB minimum
In-band Ripple	±1.5 dB max, ±1 dB typical
Gain Flatness Full 12 GHz BW	±2 dB
Group Delay Variation	1.2 ns maximum
Input P1 dB	0 dBm minimum
Noise Figure	11 dB maximum
IF Frequency Range	2-6 GHz
LO Frequency	12 GHz Bands A & C 16 GHz Band B
LO Power	+13 to +16 dBm
Input VSWR	1.8:1 maximum
Output VSWR	2.1:1 maximum
Spurious Output at P1 dB	27 dBc minimum
Power Supply:	
+ 5 V ±5%	450 mA
- 12 V ±5	30 mA
+12 V ±5%	60 mA
Control Signals	TTL levels, active high
Operating & Storage Temperature	-54°C to +95°C base plate
Humidity	95% condensing
Vibration	17.5 g RMS 10-2000 Hz random
Shock	30 g, 11 milliseconds, half-sine pulse
Dimensions	70 mm W x 112 mm L x 10 mm D (excluding connectors)
Weight	220 g maximum




KEY FEATURES

- > Full 6-18 GHz coverage in three bands
- > High level of integration
- > Amplifiers, switched filter and down converter in a single, compact package
- > State-of-the-art MMIC amplifier and SSS filter technology
- > Integral filter provides high isolation, rejection, low group delay and rapid roll-off

APPLICATIONS

- > Block down converter
- > EW receivers



The Triplex Down Converter accepts inputs in the 6 to 18 GHz band, incorporates a 3-channel filter, each channel being 4 GHz wide, and individually down converts those channels to a 2 to 6 GHz IF output.

The compact lightweight package is low powered and ruggedised for use in harsh environments over extended temperature ranges and high shock/vibration.

Triplex Down Converter Assembly

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L3Harris reserves the right to amend specifications in the light of continuing development.

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