

Converter

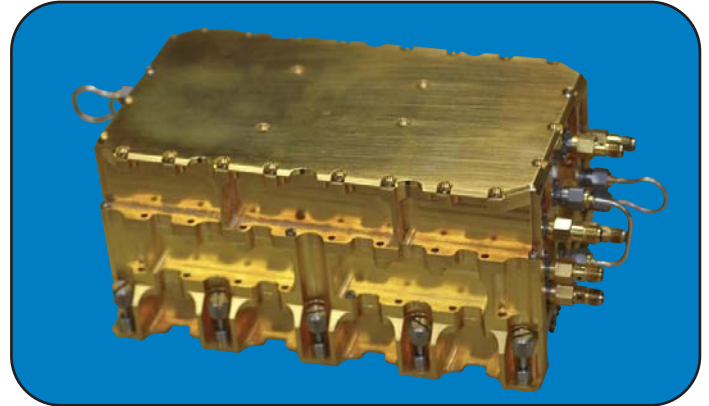
Synthesized Up/Down Converter, Ku-Band

Model: MFC143



Features:

- TCDL Compliant
- Agile Synthesized Converter
- Superior Group Delay Performance
- High IP3 Digital AGC
- Multi-Data Rate Bandwidth Selection
- Integrated BIT Mode
- RS-485 Controlled



Downconverter

Key Parameter	Requirement
Input Frequency	14-15 GHz (Full Duplex)
Step Size	5 MHz
Input Power Range	-70 to +10 dBm
Gain	>70 dB @ +2 dBm Output Power Microcontroller Based Fully Automatic Digital AGC Using Internal Log Detectors with 80 dB Dynamic Range
NF (Note 1)	<15 dB
Output 1dB Compression	>+18 dBm (Over Most of the Dynamic Range)
Isolation to Up Cvtr.	>60 dB
DSB Integrated Phase Noise	<3° (From 100 Hz-1 MHz Offset)
RF/IF Rejection	>60 dB
IF Freq	L-Band Fixed DSS - 200k, 10.7, 21.4, 45 MBPS

Upconverter

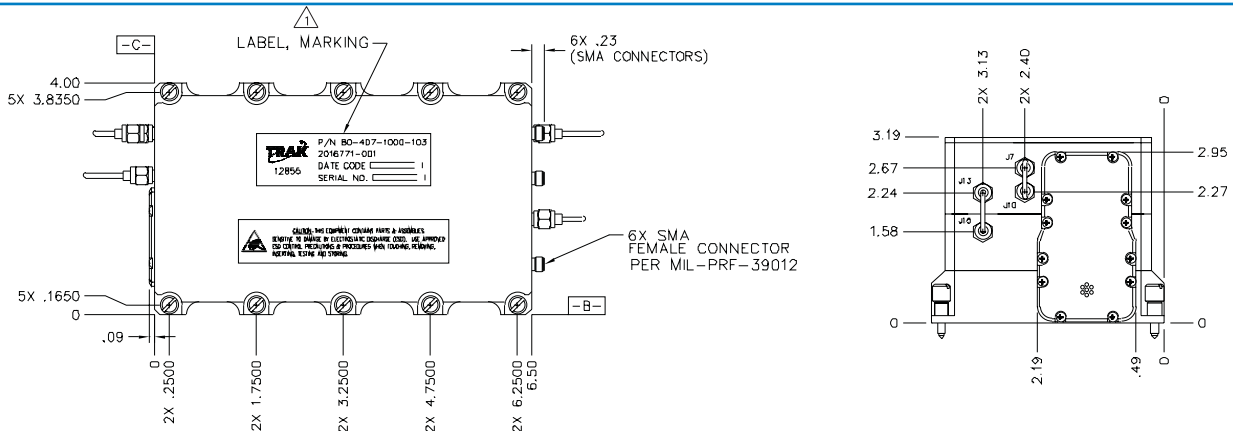
Key Parameter	Requirement
Input Frequency	L-Band Fixed
Step Size	5 MHz
Frequency Output	14-15GHz
Power Out (Note 1)	Minimum +10 dBm
Gain	16 dB nominal
Gain Flatness	<0.75 dB Over Entire RF Bandpass
DSB Integrated Phase Noise	<3° (From 100 Hz-1 MHz Offset)

Upconverter & Downconverter

Key Parameter	Requirement
Environmental	Military Airborne/Shipboard -40°C to +80°C Full Salt Spray/Humidity (IAW MIL-STD-810)
Mechanical Size	6" x 4" x 3.2" L x W x H
Weight	< 4 lbs
DC Power	DC Volts +15V/12V/-15V/+10V <30 W

Drawing:

Note 1: Intended to be used with external LNA and PA



Specifications subject to change without notice.

smiths

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