CROSS TECHNOLOGIES, INC.

DATA SHEET

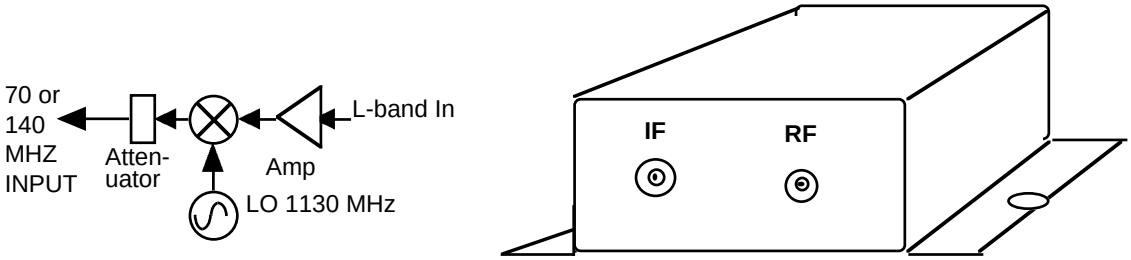
5/12/04

Series 2006-103 Fixed Frequency Downconverter

The Model 2006-103 Downconverter converts an L-Band to 70 or 140 MHz using an 1130 MHz local oscillator (LO) for loop-back applications.

EQUIPMENT DESCRIPTION

The L-band signal goes to an amplifier and is then mixed to 70 or 140 MHz with an LO of 1130 MHz. The mixer output goes to an attenuator providing a gain of -5dB. A green LED indicates the presence of DC power. Power is provided by a voltage on the L-band signal input and connectors are BNC female for the IF and F, female for the L-band RF. Wall power supply **option -P** is for 115 VAC, 60Hz and **option -P4** covers 90-260 VAC, 47-63 Hz. Specify US, EUR, AUS or UK plug for the -P4 option.



2006-103 Test Downconverter Block Diagram and Chassis

EQUIPMENT SPECIFICATIONS*

Input Characteristics	
Impedance/RL	75 Ω/12 dB
Frequency , LO	1130 MHz
Frequency , High	1200 (70M IF) or 1270 (140M IF) (non-inverting) OR
Frequency , Low	1060 (70M IF) or 990 (140M IF) (inverting)
Input Level	-15 to -25 dBm
Input 1 dB	-10 dBm
Output Characteristics	
Input Impedance/RL	75 Ω /15 dB
Frequency	70 or 140 MHz center depending on the input signal
Output Level	-20 to -30 dBm with -15 to -25 dBm in
Channel Characteristics	
Gain	-5 dB ±2 dB
Spurious Response	output not filtered; < -40 dBC inband ± 20 MHz
Image rejection	No image rejection. Must use a clean carrier with no signals in the image frequency band
Frequency Response	±0.5 dB, any 10 MHz increment, ±1.0 dB, any 40 MHz increment
Synthesizer Characteristics	
Frequency Accuracy	± 25 kHz max
Phase Noise (dBC/Hz)	≤ -80, 10 kHz; ≤ -90, 100 kHz; ≤ -100, 1 MHz
Frequency Selection	NONE: Fixed tuned
Controls/Indicators	
Controls	None
DC Power	Green LED
Other	
RF, IF Connectors	F, female, BNC, female
Size (W x H x D)	3.3 x 1.2 x 4.0 (in.); 83.8 x 30.5 x 101.6 (mm)
Power	+16 to +20VDC, 150 mA, max. on RF In
option -P Wall PS	115 VAC, 60Hz
option -P4 Wall PS	100-240 ±10% VAC, 47-63 Hz. Specify US, EUR, AUS or UK plug for the -P4 option

*+10 to +40 degrees C; 2000 meters max elevation; 80% max humidity; Pollution Degree 2;
Specifications subject to change without notice

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