



## FEATURES

- Input Frequency: 21.4 MHz
- Output Frequency: 160 MHz
- 70 to 21.4 MHz Conversion - Option
- 160 to 21.4 MHz Conversion - Option
- 21.4 to 70 MHz Conversion - Option
- External Reference
- TEMPEST - Option

## DESCRIPTION

The Model 386 IF to IF Converter accepts the 21.4 MHz IF output of a receiver or other signal source and translates the signal, without spectrum inversion, to an IF output centered at 160 MHz. 70 to 21.4 MHz, 160 to 21.4 MHz, or 21.4 to 70 MHz conversion is available as an option. The translation frequency is derived from an internal crystal oscillator which is locked to an external 1 MHz reference signal. In the absence of an external reference, the unit operates from the internal crystal oscillator. A front panel meter displays output signal level; gain may be adjusted over a range of  $\pm 10$  dB by means of a front panel control.

The IF to IF Converter is housed in an EIA standard 1-3/4 inches high chassis. Exceptional EMI integrity is achieved through the use of machined aluminum housings for RF circuitry, rigid coaxial cables and multisection RFI filters.

## SPECIFICATIONS

<b>Input Center Frequency</b>	21.4 MHz - Standard 70 or 160 MHz - Optional
<b>Output Center Frequency</b>	160 MHz - Standard 21.4 or 70 MHz - Optional
<b>Bandwidth (3dB)</b>	10 MHz, nominal
<b>Input Level</b>	-90 to -10 dB
<b>Output Level</b>	0 dBm, maximum
<b>External Reference Input</b>	1 MHz
<b>Impedance - All Signal Ports</b>	50 ohms
<b>Return Loss - All Signal Ports</b>	> 14 dB
<b>Gain</b>	± 10 dB
<b>Group Delay Variation</b>	< ± 90 ns
<b>Passband Ripple</b>	± 2 dB

<b>Total Harmonic Distortion</b>	< 3%
<b>Spurious Outputs</b>	< -50 dB
<b>Image Rejection</b>	> -40 dB
<b>Controls - Front Panel</b>	Power, Gain
<b>Meters</b>	Output Level
<b>LED Indicators</b>	Overload, Signal Present
<b>Connectors</b>	BNC - rear panel
<b>Power</b>	115/230 Vac ± 10%, 47-63 Hz, 20 W, nominal
<b>Temperature - Operating</b>	0° to 50° C
<b>Style</b>	EIA standard chassis, 1-3/4 inches high, 19 inches deep, suitable for 19-inch rack mounting
<b>Weight</b>	20 lbs.

Specifications are subject to change without notice.

## ORDERING INFORMATION

A standard Model 386 provides an IF input at 21.4 MHz and an IF output at 160 MHz, with an internal crystal oscillator. Other in- and output center frequencies are available as options. When ordering, please specify:

<b>Model 386</b>	IF to Tape Converter (21.4 to 160 MHz Conversion)	<b>Option C43</b>	21.4 to 70 MHz Conversion
<b>Option C41</b>	70 to 21.4 MHz Conversion	<b>Option T01</b>	Designed to meet TEMPEST requirements
<b>Option C42</b>	160 to 21.4 MHz Conversion		

## WARRANTY

All of Reaction Instruments' equipment is warranted for one year, except for damage caused by accident or misuse, provided the equipment is returned for repair to the plant in Herndon, VA.

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