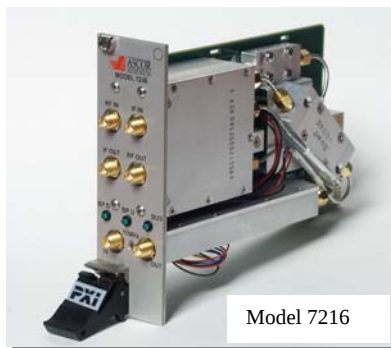


Ascor Block Frequency Converters 3.2 to 4.2 GHz



The Ascor Model 7214/15/16 Series of Block Frequency Converters are designed to extend the operation of the National Instruments PXI 5660 RF Analyzer and 5670 Signal Generator into the 3.2 to 4.2 GHz frequency range covering both Wi-Max and C-Band Satellite Applications. Three models are available...The Model 7214 Down Converter, the Model 7215 Up Converter and the 7216 Combination Up/Down Converter. No tuning is necessary... wideband mixing techniques are used throughout. A 10 MHz reference signal is supplied by the PXI 5660 to ensure stable operation.

These modules provide a transparent, cost-effective way to increase the working range of the PXI 5660/5670

Model 7214 and Down-Converter Section of Model 7216

Frequency Range:

Input	Output	Flatness
DC to 3 GHz	DC to 3 GHz	± 0.75 dB
3.2 to 4.2 GHz	1.4 to 2.4 GHz	± 0.75 dB in any 25 MHz band ± 2 dB over entire range

Frequency Stability is based on the stability of the 10 MHz reference source

Phase Noise

Frequency Offset	dBc/Hz
10 kHz	-95
100 KHz	-110
1 MHz	-125

Spurious Sidebands within ± 200 kHz:	< -55 dBc
LO Component present on RF Port:	< -60 dBm
LO Component present on IF Port:	< -70 dBm
RF Frequency Component present on IF port:	< -50 dBm

Amplitude Characteristics for Converter Path

Max Amplitude with Attenuator set to 0 dBm:	+20 dBm
Linear Operating Range:	-10 dBm to noise floor

Nominal Conversion Gain:	0 dB
Attenuation Error (dB):	$< \pm 0.5 + 5\%$ of Attenuation Setting
Conversion Gain Error (dB):	Attenuation Error + Frequency Response Error

2-Tone Intermodulation Distortion at -20 dBm each separated by 1 MHz:	< -75 dBc
Noise Floor:	< -140 dBm/Hz

Programmable Attenuator Range:	32 dB
Usable Range:	28 dB
Resolution:	0.5 dB

General Characteristics:

User Interface Plug and Play
Size 3U PXI 2-slot
Weight: 3 lbs
Power Consumption TBD

Model 7215 and Up-Converter Section of Model 7216

Frequency Range:

Input	Output	Flatness
DC to 3 GHz	DC to 3 GHz	± 0.75 dB
1.4 to 2.4 GHz	3.2 to 4.2 GHz	± 0.75 dB in any 25 MHz band ± 3 dB over entire range

Frequency Stability is based on the stability of the 10 MHz reference source

Phase Noise

Frequency offset	dBc/Hz
10 kHz	-95
100 KHz	-110
1 MHz	-125

Spurious Sidebands within ± 200 kHz:	< -55 dBc
LO Component present on RF Port:	< -60 dBm
LO Component present on IF Port:	< -16 dBm
IF (input) Frequency Component present on RF port (output):	< -70 dBm

Amplitude Characteristics for Converter Path:

Maximum Input Amplitude:	+20 dBm
Output Linear Range:	0 dBm to noise floor

Nominal Conversion Gain:	+5 dB
Attenuation Error (dB):	$< \pm 0.5 + 5\%$ of Attenuation Setting
Conversion Gain Error (dB):	Attenuation Error + Frequency Response Error

2-Tone Intermodulation Distortion at -20 dBm each separated by 1 MHz:	< -75 dBc
Noise Floor:	< -145 dBm/Hz

Programmable Attenuator Range:	32 dB
Usable Range:	28 dB
Resolution:	0.5 dB

General Characteristics:

User Interface Plug and Play
Size 3U PXI 2-slot
Weight: 3 lbs
Power Consumption TBD

Frequency Converters

4.9 to 6 GHz Block Converters

7205 Down Converter

7206 Up Converter

7207 Up/Down Converter

2.7 to 6 GHz Tunable Converters

7208 Down Converter

7209 Up Converter

7210 Up/Down Converter

3.2 to 4.2 GHz Block Converters

7214 Down Converter

7215 Up Converter

7216 Up/Down Converter