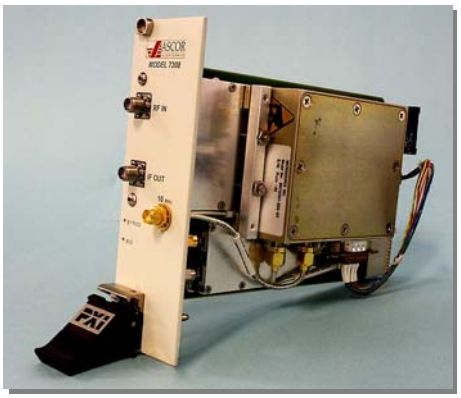
Ascor Tunable Frequency Converters 2.7 to 6 GHz



The Ascor 7208/7209/7210 Series of Tunable Frequency Converters are designed to extend the operation of the National Instruments PXI 5660 RF Analyzer and 5670 Signal Generator all the way from 9 KHz to 6 GHz with no breaks.

Three models are available…The Model 7208 Down Converter, the Model 7209 Up Converter and the 7210 Combination Up/Down Converter. 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 7208 and Down-Converter Section of Model 7210

Frequency Range:

Input	Output	Flatness
DC to 3 GHz	DC to 3 GHZ	± 0.75 dB
2.7 to 6 GHz	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
1 KHz	-85
10 kHz	-85
100 KHz	-120
1 MHz	-135

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

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
Conversion Gain Accuracy	± 1 dB
Attenuation Error (dB):	<± 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 – Note 7210 is 3 slots wide
Weight: 3 lbs
Power Consumption TBD

Model 7209 and Up-Converter Section of Model 7210

Frequency Range:

Input	Output	Flatness
DC to 3 GHz	DC to 3 GHZ	± 0.75 dB
2.4 GHz	2.7 to 6 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
1 KHz	-85
10 kHz	-85
100 KHz	-120
1 MHz	-135

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

Amplitude Characteristics for Converter Path:

Maximum Input Amplitude:	+20 dBm
Output Linear Range:	0 dBm to noise floor
Nominal Conversion Gain:	+0 dB
Conversion Gain Accuracy	± 1 dB
Attenuation Error (dB):	<± 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:	< -140dBm/Hz

Programmable Attenuator

Range:	32 dB
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General Characteristics:
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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

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