



18 GHz to 40 GHz Block Converters

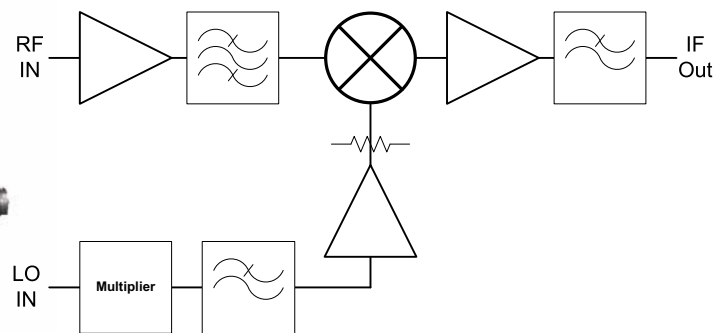
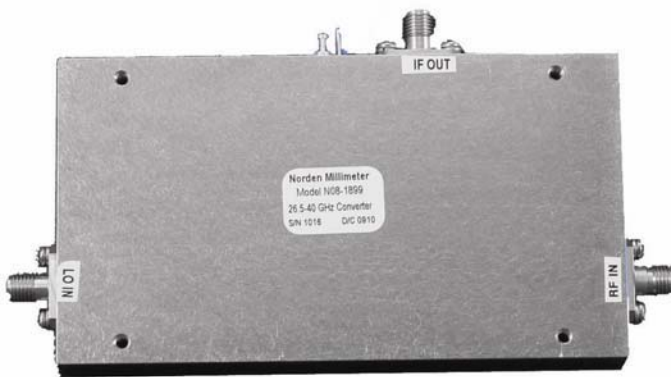
Norden Millimeter has designed and delivered 18 to 26.5 GHz and 26.5 to 40 GHz block down converters to extend the frequency range of the 0.5 GHz to 18 GHz receiver. These block down converters allow the receiver to operate from 500 MHz to 40 GHz without the need of additional converters. Norden uses the latest in MMIC and packaging technology to bring these designs to manufacturing in a small package size

Block Down Converter Performance:

Frequency: 18 GHz to 26.5 GHz
 Gain: 9 dB Typical
 LO Input: 14.4 GHz
 LO Input Power: -2 dBm Typical
 Noise Figure: 7.5 dB Typical
 Input 1 dB Compression: 3.5 dBm Typical
 Image Rejection: > 80 dB Typical
 LO Leakage: > 80 dBm Typical
 Spurious: < -60 dBc Typical
 LO-IF Leakage: - 80 dBm
 VSWR RF/LO/IF: <1.7:1 Typical
 Supply Voltage: +8 VDC +/-5%
 Current Draw: 550 mA Typical
 Connectors: RF – 2.92 mm Female
 LO & IF – SMA Female
 Dimension: 4.9" L X 3.7" W X 0.4" T

Block Down Converter Performance:

Frequency: 26.5 GHz to 40 GHz
 Gain: 9 dB Typical
 LO Input: 14.4 GHz
 LO Input Power: -2 dBm Typical
 Noise Figure: 11.5 dB Typical
 Input 1 dB Compression: 2 dBm Typical
 Image Rejection: > 70 dB Typical
 LO Leakage: > 80 dBm Typical
 Spurious: < -60 dBc Typical
 LO-IF Leakage: - 80 dBm
 VSWR RF/LO/IF: <1.6:1 Typical
 Supply Voltage: +8 VDC +/-5%
 Current Draw: 760 mA Typical
 Connectors: RF – 2.92 mm Female
 LO & IF – SMA Female
 Dimension: 4.9" L X 3.7" W X 0.4" T



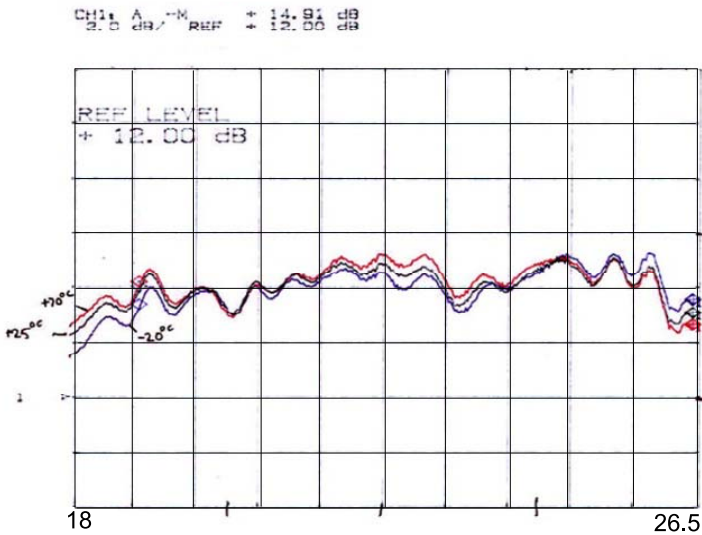
Down Converter Block Diagram

**5441 MERCHANT CIRCLE, SUITE C
 PLACERVILLE, CA 95667**

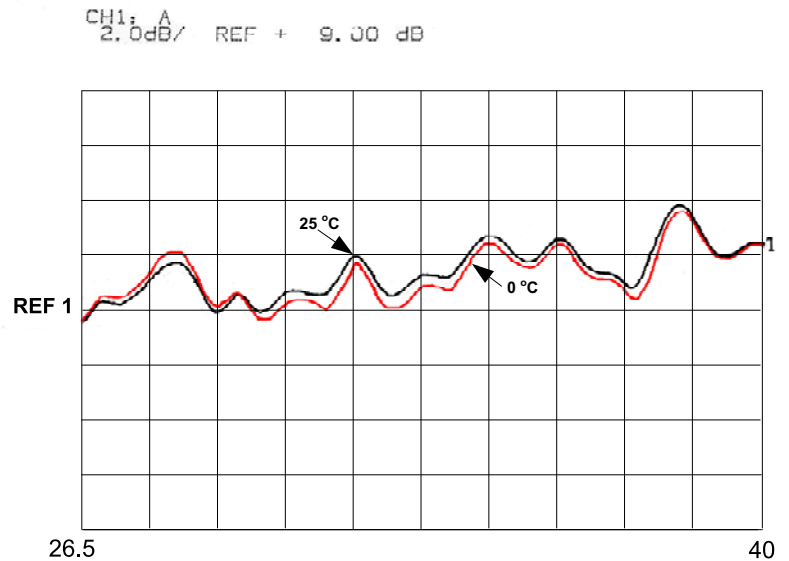
(530) 642-9123 WWW.NORDENGROUP.COM



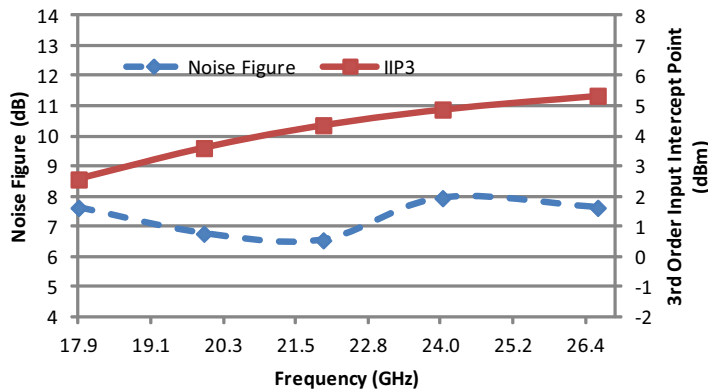
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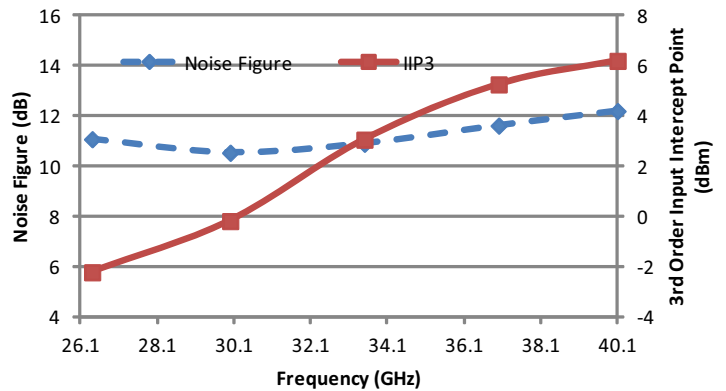
**Gain Conversion vs. Frequency vs. Temperature
18 GHz to 26.5 GHz Converter**



**Gain Conversion vs. Frequency vs. Temperature
26.5 GHz to 40 GHz Converter**



**Noise Figure and 3rd IIP vs. Frequency
18 GHz to 26.5 GHz Converter**



**Noise Figure and 3rd IIP vs. Frequency
26.5 GHz to 40 GHz Converter**

**NORDEN FOCUS IS ON CUSTOM DESIGNS, MODULAR
CONSTRUCTION, COST EFFECTIVENESS AND QUICK TURN**