

For Demanding RF Environments Brickwall Series Integrated MMDS Downconverters

Now MMDS system designers and engineers can improve system performance with a product designed to operate in the most demanding of RF environments, while also protecting the LNA from the inevitable introduction of new interfering services. The Brickwall Series of MMDS downconverters uses a “filter first” approach for pre-LNA brickwall protection against PCS, WCS, and radar services. Unwanted interfering carriers are filtered out before they reach the first amplifier stage in the circuit, preventing the amplifier from being overdriven and allowing use in areas previously not available. The Hi_Q interdigital style filter offers superior discrimination at the lowest insertion loss.

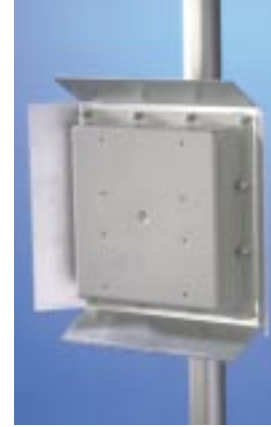
Brickwall series integrated MMDS downconverters are directly matched to an antenna, allowing full RF integration. The antennas are either Andrew Corporation’s Mag Grid or Microceptor Series of S-band products. The downconverters are compatible to multiple modulation schemes, including 256 QAM, and are available in a variety of amplifier gains.

Features and Options

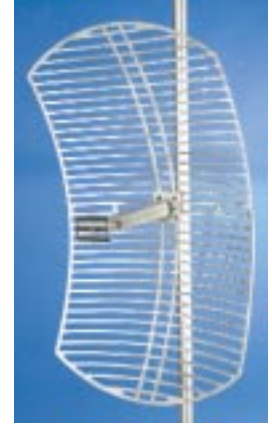
- *Pre-LNA filtering*
- *Lowest insertion loss*
- *Digital compatibility*
- *Low noise figure*
- *Superior discrimination*

Ordering Information

Type #	Antenna Type	Bandpass Filter	Radar Notch	Amp Gain
DL-5447	13 dBi Dual Microceptor	Pre-LNA Brickwall		20 dB
DL-5446	13 dBi Dual Microceptor	Pre-LNA Brickwall		32 dB
DL-5445	13 dBi Dual Microceptor	Pre-LNA Brickwall		36 dB
QD-5447	16 dBi Quad Microceptor	Pre-LNA Brickwall		20 dB
QD-5446	16 dBi Quad Microceptor	Pre-LNA Brickwall		32 dB
QD-5445	16 dBi Quad Microceptor	Pre-LNA Brickwall		36 dB
DL-5453	13 dBi Dual Microceptor	Pre-LNA Brickwall	X	20 dB
DL-5451	13 dBi Dual Microceptor	Pre-LNA Brickwall	X	32 dB
DL-5450	13 dBi Dual Microceptor	Pre-LNA Brickwall	X	36 dB
QD-5453	16 dBi Quad Microceptor	Pre-LNA Brickwall	X	20 dB
QD-5451	16 dBi Quad Microceptor	Pre-LNA Brickwall	X	32 dB
QD-5450	16 dBi Quad Microceptor	Pre-LNA Brickwall	X	36 dB
18T-5447	18 dBi Mag Grid Parabolic	Pre-LNA Brickwall		20 dB
18T-5446	18 dBi Mag Grid Parabolic	Pre-LNA Brickwall		32 dB
18T-5445	18 dBi Mag Grid Parabolic	Pre-LNA Brickwall		36 dB
26T-5447	24 dBi Mag Grid Parabolic	Pre-LNA Brickwall		20 dB
26T-5446	24 dBi Mag Grid Parabolic	Pre-LNA Brickwall		32 dB
26T-5445	24 dBi Mag Grid Parabolic	Pre-LNA Brickwall		36 dB



QD-5446



26T-5446

Brickwall Series Integrated MMDS Downconverters

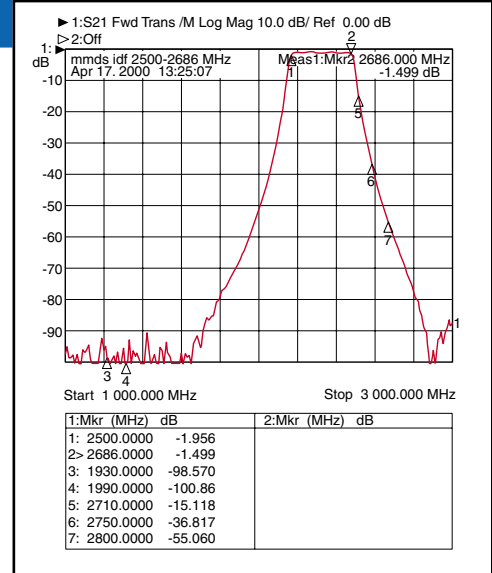
Parameter	Specification
Antenna Gain (dBi)	
DL series	13 @ 2150–2686 MHz
QD series	16 @ 2150–2686 MHz
18T series	18 @ 2150–2686 MHz
26T series	24 @ 2150–2686 MHz
Amplifier Gain*	20 dB: xx-5447 & xx-5453 32 dB: xx-5446 & xx-5451 36 dB: xx-5445
Noise Figure*	5 dB: xx-5447 & xx-5453 4 dB: xx-5446 & xx-5451 3 dB: xx-5445
Operating Frequencies**	
RF	2500–2686 MHz
IF	222–408 MHz
LO Frequency	2278 MHz ± 30 KHz vs. -40°C to +60°C
LO Phase Noise	> -65 dBc/Hz @ 100 Hz > -93 dBc/Hz @ 10 KHz > -120 dBc/Hz @ 1 MHz
Rejection Statistics	RF Rejection (pre-LNA)
PCS	> 95 dB @ 1930–1990 MHz
WCS	> 55 dB @ 2360 MHz
Radar	> 10 dB @ 2705 MHz
Radar	> 15 dB @ 2710 MHz
Output Interface	75 Ohms F-type female
Supply Voltage	+15 to +24 V
Supply Current	220 mA typical

* where xx is antenna series prefix

**33 Channel versions available upon request (6 MHz/channel)

PS-1341: 120 volt power supply

PS-2342: 220 volt power supply



RF/IF Combined

- > 100 dB @ 1930–1990 MHz
- > 100 dB @ 2360 MHz
- > 35 dB @ 2705 MHz
- > 40 dB @ 2710 MHz



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