



FEATURES & BENEFITS

Gain selectable options:
low, mid and high

Longer cable runs can now be achieved with increased high gain mode

Small, lightweight design and fully protected to IP67

Tri-colour LED switch offering easy control of gain and LO modes

Switchable LO frequencies on wideband variants offering superior image frequency rejection

Bracket included to facilitate straightforward rail and pole mounting

DBS Downconverter Tri-Gain Selectable Broadcast

DTC's Downconverter Tri-Gain Selectable product has been designed for use with DTC Broadcast receivers and is also suitable for third-party systems.

Designed to handle diverse operational scenarios, the downconverter has three switchable gain modes: low, middle and high; at the press of a button. A panel-mounted tri-colour LED switch simplifies gain and local oscillator (LO) mode control and identification.

Wider bandwidth variants now cover an extended spectrum of frequencies, thanks to the inclusion of LO selectivity, while maintaining exceptional rejection of image frequencies.

Downconverters are connected directly to the receive antenna or filter, if being used, and are designed for permanent outdoor deployment offering versatile attachment options such as cable ties and screw-hole fixings for maximum flexibility. Power is drawn from the connected receiver and operates within a voltage range of 9-24VDC.

IO

RF input 50Ω	N-type (f)
IF output 75Ω	BNC (f)
Analogue audio in	Lemo 0B 5 pin Female
Power	Lemo 0B 4 pin Female
Data / Ethernet	10 pin

RF

RF input power before damage (max)	35mW (+15dBm)
P1db input for normal operation (max)	-10dBm low gain -15dBm mid gain -25dBm high gain
IF output	150-850MHz (dependent on frequency band)
Gain, typical	10dB low gain 25dB mid gain 40dB high gain
Noise figure	3dB approx
Phase noise @ 1750MHz LO	-91dBc/Hz @ 1kHz -96dBc/Hz @ 10kHz -109dBc/Hz @ 100kHz
LO frequency stability	±1.0ppm
LO frequency stability (aging)	±1.0ppm/year
Image rejection	> 60dBc

Power

Power input	9VDC from the receiver - 24VDC max
Power consumption	< 3W

Physical

Dimensions (incl. connectors)	140mm x 50mm x 27mm
Weight	260g approx
Enclosure colour	Black anodised

Environment

Sealing	IP67
Ethernet	RJ45 1000/Base-T/100bT

Controls/Indicators

Panel mount LED indicator	Low gain green Mid gain white High gain red LO1 solid, LO2 flash (if applicable) Disable LED option
Panel mount LED switch	Gain and LO select

Cable

RG59	48-82m (max typical)
RG6	82-133m (max typical)
LMR400-75	127-233m (max typical)
LDF4-75	227-387m (max typical)

Note: The maximum length of cable depends on the RX frequency, as this dictates the down converted UHF frequency which the cable has to carry. The theoretical cable lengths show best and worst case, dependent on the frequency used.

Product Codes

DCTGSB-100150	1.00-1.50GHz, LO: 1800MHz (300-800MHz IF)
DCTGSB-200290	2.00-2.45GHz, LO1: 1750MHz (250-700MHz IF) 2.45-2.90GHz, LO2: 2050MHz (400-850MHz IF)
DCTGSB-550600	5.50-6.00GHz, LO: 5200MHz (300-800MHz IF)
DCTGSB-680750	6.80-7.15GHz, LO1: 6300MHz (500-850MHz IF) 7.15-7.50GHz, LO2: 6650MHz (500-850MHz IF)

Product Includes:

MW4513	Downconverter bracket
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