

DCBGS

Downconverter Barrel Gain Selectable

Overview:

All DTC receivers operating at frequencies above 850MHz require downconverters. DTC downconverters offer excellent low noise performance and are gain selectable, which dictates how much cable they can drive (typically 10-15m for the low gain and 50-100m for high gain - for precise cable run length calculations contact DTC). Power is drawn from the connected receiver.

DTC downconverters are connected directly under the antenna and are designed for permanent outdoor deployment with magnetic, cable-tie and screw-hole fixings for maximum flexibility.

Available in three variants; DCBGS (Surveillance) TNC to TNC, DCBGSB (Broadcast) N-Type to BNC, and DCEBGSB (Broadcast, Extended Barrel) N-Type to BNC.



Features and Benefits:

Gain selectable - high/low

LED gain indicator - high/low/off

Low noise

Flexible mounting options

Mounting kits available

Product Information:

Product Includes

MW0535	*Inline downconverter quick mount clip
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*DCBGSB variants only

Accessory Options (sold separately)

ACC-BDCMNT	Dual downconverter lighting stand mount kit
MW0535	Inline downconverter quick mount clip
CABRF3	Low loss RF cable 50Ω TNC/TNC (m), 3m
CABRF10	Low loss RF cable 50Ω TNC/TNC (m), 10m
CABRFBNC10	Low loss RF cable 75Ω BNC/BNC (m), 10m

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Technical Specification:

IO

RF input 50Ω	TNC female - DCBGS N-type female - DCBGSB
IF output 75Ω	TNC female - DCBGS BNC female - DCBGSB/DCEBGSB

RF

RF input power before damage (max)	35mW (+15dBm)
P1db input for normal operation (max)	100uW (-10dBm)
IF output	150-850MHz (dependent on frequency band)
Gain, typical	10dB low gain 30dB high gain
Noise figure	3.5dB

Power

Power input	6VDC from the receiver - 14.5VDC max
Power consumption	2.2W to 3W depending on gain mode

Physical

Dimensions (incl. connectors)	105mm x 48mm (DCBGS/DCBGSB) 148mm x 48mm (DCEBGSB)
Weight	225g approx.

Environment

Sealing	Designed to meet IP65
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Controls/Indicators

Rotary gain switch/LED in base	Low gain LED green or screened High gain LED red or screened
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Frequency

100150 (DCBGS/DCBGSB)	1.00-1.50GHz - LO 1800MHz, high side
160202 (DCBGS/DCBGSB)	1.60-2.02GHz - LO 2350MHz, high side
175238 (DCBGS only)	1.75-2.38GHz - LO 2600MHz, high side
198270 (DCEBGSB only)	1.98-2.70GHz - LO 1850MHz, low side
203255 (DCBGS/DCBGSB)	2.03-2.55GHz - LO 1720MHz, low side
310360 (DCBGS/DCBGSB)	3.10-3.60GHz - LO 2750MHz, low side
440500 (DCBGS/DCBGSB)	4.40-5.00GHz - LO 4150MHz, low side
550600 (DCBGS/DCBGSB)	5.50-6.00GHz - LO 5200MHz, low side
640700 (DCBGS/DCBGSB)	6.40-7.00GHz - LO 6150MHz, low side
700750 (DCBGS/DCBGSB)	7.00-7.50GHz - LO 6650MHz, low side
810860 (DCBGS/DCBGSB)	8.10-8.60GHz - LO 7750MHz, low side
840890 (DCBGS/DCBGSB)	8.40-8.90GHz - LO 8050MHz, low side

Cable

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

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

Export of encrypted products is subject to regulatory export controls.

For further information contact your Sales Account Manager, one of our Regional Sales Offices, or email solent.enquiries@domotactical.com

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