# 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 |

*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<br>N-type female - DCBGSB |
| IF output 75Ω | TNC female - DCBGS<br>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<br>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)<br>148mm x 48mm (DCEBGSB) |
| Weight | 225g approx. |

#### Environment

| | |
|---|---|
| Sealing | Designed to meet IP65 |

#### Controls/Indicators

| | |
|---|---|
| Rotary gain switch/LED in base | Low gain LED green or screened<br>High gain LED red or screened |

#### 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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