

DVB-T Diversity Receiver (DDR)

COBHAM

The most important thing we build is trust.

Applications

- Mobile and Portable AV Applications
- Electronic News Gathering (ENG)
- Sports
- Point of View
- Studio Wireless Links
- Helicopter links
- UAV/UGV Applications
- Commercial DVB-T Reception

Key Features

- Dual-RF diversity mobile reception of DVB-T digital terrestrial transmissions with doppler enhancement
- Nordig II and ETS 300 744 DVB-T full compliance
- OFDM demodulation 2K and 8K FFT for SFN and MFN
- Supports QPSK and 16/64QAM constellations
- Compact and lightweight



GMS' DVB-T Diversity Receiver (DDR) is a state-of-the-art DTV receiver for in-vehicle (mobile) applications. It can be used for direct commercial DTV reception in counties that use DVB-T transmission or it can be used with GMS' Messenger Series transmitters and Block-Down Converters (BDCs) for point to point and point to multi-point terrestrial applications. When used in conjunction with GMS' Block Down Converters (BDCs), the MSR can cover frequency bands up exceeding 7 GHz.

The DDR uses dual-Input Pre-Detect Maximal-Ratio Diversity Combining to provide superior reception in tough multi-path environments.

- Pre-Detect Diversity Combining can increase the Signal to Noise Ratio (SNR) by 2.5 dB or 78% if the antennas are getting the same signal from the transmitter. Increasing reception range.
- Probability of good reception is dramatically increased with Spatial Diversity!
- Possibility to increase transmitted bit rate and maintain the same robust link performance, maximizing video quality.

The DDR' superior Doppler performance enables excellent signal reception, while driving at high speeds up to ~150km/hour with UHF/VHF transmission. In addition to its full compliance with ITU DVB and Nordig II standards, anti-shock, anti-violation and Car-Break Video-Shutoff functions, the DVB-T Diversity Receiver provides three composite video outputs and two composite A/V inputs, that allow connection with A/V devices such as DVD players and navigation devices.

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Specifications:

RF & DVB-T COFDM Characteristics:

Dual-RF diversity with Doppler enhancement
Nordig II and ETS 300 744 DVB-T full compliance
Full 47MHz to 860MHz frequency range for VHF and UHF. Optional BDCs provide reception to 7 GHz in-bands.

Manual Tuning Resolution: 1 KHz
Auto-Search for Commercial Channels
OFDM demodulation 2K and 8K FFT for SFN and MFN

Symbol rates up to 34MSps
Automatic adjacent-channel interference cancellation
Supports QPSK and 16/64QAM constellations
Supports 1/4, 1/8, 1/16, 1/32 1/32 guard interval
Supports FEC decoding: 1/2, 2/3, 3/4 5/6 and 7/8
Supports reed-solomon (204,188) ETS 300 477

DVB/MPEG2 transport and de-multiplexing:

ISO/IEC 13818-1 MPEG-2 transport stream compliance

Video decoding and OSD:

ISO/IEC 13818-2 MPEG-2 video MP at ML compliance
ISO/IEC 11172-2 MPEG-1 video compliance
Resolution: 720 x 480 for NTSC and 720 x 576 for PAL

16:9/4:3, 3:2 pull down, letterbox and pan/scan

Audio decoding:

ISO/IEC 13818-3 MPEG-2 audio compliance
Single/dual/joint stereo/stereo
Sampling rate up to 48kHz
Supports linear PCM sample rates up to 96kHz

Front Panel:

Power-on LED
12V power connector
Infrared remote control cable
RS232 port to upload software

Rear Panel:

Antenna-in: F-type-Female x 2
Stereo audio output (RCA-F) x 1
Composite video output (RCA-F) x 3
Composite video and audio input (RCA-F) x 2

Mechanical properties:

Dimensions (W x D x H): 203 x 165 x 38mm
Weight: 1.3kg
Operation temperature: +5 to +60 degrees Celsius
Storage temperature: -0 to +80 degrees Celsius