

## VB252

DVB-T/T2 TERRESTRIAL RF INPUT MODULE. The VB252 is a dual input DVB-T/T2 input interface module that enables monitoring of digital terrestrial transmissions. Two modules may be housed in a 1RU chassis together with a controlling VB120 or VB220 probe, providing high monitoring capacity occupying a minimum of rack space. In addition to monitoring typical RF parameters, the monitoring solution optionally allows advanced analysis of the T2MI protocol in DVB-T2 systems; signal integrity is verified layer by layer. The VB252 also supports the T2 Lite standard with full analysis of T2 Lite transmissions. All this analysis functionality is complemented by the renowned Bridge Technologies ETSI TR 101 290 monitoring engine to ensure standards conformance at all levels.



### Technologies

Bridge Technologies options are designed to enhance the overall ability and performance of accurate monitoring in the broadcast environment

Click below to learn more about compatible technology options:

[Eii™](#) [ETR290™](#)

### Environmental

[Euroenvironment](#) [RoHS](#) [WEEE](#)

### Chassis Options

[ACC](#) [DCC](#) [EC](#) [EC-DC](#)

## Overview

In a typical DVB-T/T2 system transmitter, sites are fed via IP infrastructure or via satellite distribution. The Bridge Technologies range of interfaces and interface modules makes it easy to monitor the complete signal chain end-to-end. The VB120/VB252 combination enables monitoring of up to 50 IP multicasts, thus monitoring IP network distribution together with DVB-T2 transmissions. It is even possible to equip the monitoring chassis with a VB272 satellite interface module, which is valuable if combined IP and satellite distribution to transmitter sites is used.

Similarly, the VB252 can be used with a VB242 ASI input module, enabling high density ASI and DVB-T/T2 monitoring.

The basic VB252 supports one COFDM RF input. The second input of the VB252 can be enabled by the customer via a software licencing option. This flexibility allows probe capacity to be tailored to individual system needs, and increase as a monitoring system is expanded to include more transport streams.

The Advanced RF Option adds impulse response graphing and analysis to the VB252, making it possible to check reflection conditions at the probe location. Configurable threshold limits determine when an alarm should be raised due to reflection changes in time or power.

Impulse response analysis results are presented as a user-friendly graphical GUI, facilitating reflection measurement interpretation. Licence upgrades are performed by entering a licence key in the regular probe GUI and can therefore be performed remotely.



## Tech Features

### VB252: DVB-T/T2 TERRESTRIAL RF INPUT MODULE

- Choice between 50 ohm female SMA (VB252-SMA) or 75 ohm female F-type connectors (VB252)
- 50 ohm female SMA 1-pulse-per-second GPS input for SFN Drift measurements
- 9-pin D-Type male connector for relay alarm indication
- One red/green LED TS sync indicator per RF input
- Supports DVB-T EN 300-744 and DVB-T2 EN-302-755
- Frequency range 43 – 1002 MHz
- Symbol rate range 0.7 – 7.2 Msym/s
- All versions of DVB-T2 supported: 1.1.1, 1.2.1 and 1.3.1
- DVB-T2 Base and DVB-T2 Lite profiles supported (1.3.1)
- Channel bandwidth: 1.7 (T2-Lite only), 5, 6, 7 and 8 MHz
- Round-robin capability across multiple PLPs within one frequency
- Capable of monitoring the following RF parameters:
  - Channel power RF level
  - Modulation Error Rate MER(PLP)
  - Signal to Noise Ratio SNR
  - Center Frequency Offset
  - Spectrum sense
  - 1PPS Input Lock
  - Pre Viterbi BER (DVB-T)
  - Pre Reed Solomon BER (DVB-T)
  - Pre LDPC BER (DVB-T2)
  - Pre BCH BER (DVB-T2)
  - Post BCH FER (DVB-T2)
  - Packet Error Rate
  - LDPC Iterations count
- DVB-T SFN Drift monitoring for measuring absolute transmission time of mega frame
- DVB-T2 SFN Drift monitoring by measuring timing of T2MI frame versus received RF super frame
- Readout of TPS information (DVB-T)
- Readout of signalled L1 and PLP parameters (DVB-T2)
- Channel impulse Response diagram
- Constellation diagram

- SFN Drift monitoring for DVB-T
- SFN Drift monitoring for DVB-T2
- Extract and display over 30 signalled DVB-T2 L1 Pre information parameters
- Extract and display over 20 signalled DVB-T2 L1 PLP information parameters
- Extract and display 9 signalled DVB-T2 L1 Post information parameters

#### ADDITIONAL RF INPUT OPTION

- Enabling the second VB252 RF input
- Remote licence upgradeable

#### ADVANCED RF OPTION

- Constellation diagram
- Channel Impulse response diagram with advanced alarming capabilities
- Configurable alarm template to verify position of CIR echoes in both time and relative amplitude
- Supports alarming on up to 10 CIR echoes

#### RF SPECIFICATIONS

- RF power level: -80 dBm to -20 dBm
- RF power level accuracy: +/- 1.5 dB
- RF power level resolution: 1 dB
- Maximum SNR: > 38dB +/- 1.5dB
- Maximum MER: > 38dB +/- 1.5dB
- Carrier offset: < 15 ppm of tuning frequency
- SFN drift: 0 to 500ms
- SFN drift accuracy: +/- 2us

## Software Options

- Additional RF input option for VB252/VB252-SMA card for a total of 2
- Advanced RF Option for VB252/VB252-SMA with Impulse Response graphing and alarming
- Advanced RF Option for VB252/VB252-SMA with Impulse Response graphing and alarming, factory ordered
- Advanced RF Option for VB252/VB252-SMA, upgrade license

## Ordering Codes

VB252 – DVB-T/T2 COFDM Demodulator interface blade single RF input – 750hm F-Connectors

VB252-SMA – DVB-T/T2 COFDM Demodulator interface blade single RF input – 500hm SMA Connectors

VB252RF-OPT – Additional RF input option for VB252/VB252-SMA card for a total of 2

VB252RF-UPGR – Advanced RF Option for VB252/VB252-SMA with Impulse Response graphing and alarming

VB252-ARF-OPT – Advanced RF Option for VB252/VB252-SMA with Impulse Response graphing and alarming, factory ordered

VB252-ARF-UPGR – Advanced RF Option for VB252/VB252-SMA, upgrade license

## Documentation

[User Manual – Download](#)

[Quick Start Guide – Download](#)

## Related Products



**VB120**

IP MONITOR PROBE



**VB256**

ISDB-T TERRESTRIAL RF  
INPUT MODULE