

TMD2214 family

10MHz Low Noise Frequency Switch, Amplifier/Distributor

-R option

Redundant input

-2R option

Redundant input and power supply Frequency Distributor

Automated switch

Remote monitoring and Control

Ajustable Factory gain

Features

The TMD2214 equipment amplifiers & distributes 10MHz frequency.

In case redundant input option is selected, it also provides switching between two 10MHz frequency sources, amplification and distribution of the selected frequency. The internal amplifier ensures a low phase noise.

The equipment is a 1U rack mountable 19-inch.

The TMD2214 has 12 BNC isolated and filtered independent outputs in standard version.

TM2214 UltraLN has only 10 outputs

Operation

On the front panel, two push buttons combined with two groups of three LEDs allow to:

- Select the mode: Automatic switch or Manual switch
- Select the source when in manual mode between Source A and Source B
- Indicate the selected source
- Indicate the status of the source

Remote Control

Remote monitoring and control are done via an Ethernet 10/100 Mbit/s connection using either HTTP or a proprietary UDP protocol. It provides the equipment status and allows configuring the mode of operation.

Performance summary

Product	Isolated output	Filtered output	Noise Phase 1Hz	Noise Phase 10Hz	Noise Phase 100Hz	Noise Phase 1KHz	Noise Phase >10KHz
TMD2214	Yes	Yes	-100dBc/Hz	-128dBc/Hz	-140dBc/Hz	-148dBc/Hz	-150dBc/Hz
TMD2214 OPT VLN	No	No	-110dBc/Hz	-135dBc/Hz	-150dBc/Hz	-160dBc/Hz	-160dBc/Hz
TMD2214 OPT UltraLN 10 Outputs	No	No	-98dBc/Hz	-123dBc/Hz	-148dBc/Hz	-158dBc/Hz	-165dBc/Hz
TMD2214 OPT AG	Yes	Yes	-100dBc/Hz	-128dBc/Hz	-140dBc/Hz	-148dBc/Hz	-150dBc/Hz



TMD2214 Family - Front Panel

Specifications

Inputs

Default: Both inputs accept signals level range from 0 to +13dBm \pm 1 dBm

Outputs

Defaults: The default input / output ratio is +2 dBm on a 50 Ohm load on the available outputs (Output = Input + 2dBm). Output accuracy is +1dBm.

OPT Gain: specific gain can be configured on demand

Switching

Fault detection delay is < 40ms.
Switching time is < 50ms.

Connections

The input and output signals are located on the rear panel of the equipment. By default, the connectors for the two inputs and the 12 outputs are BNC female type. The remote-control connector is an RJ45 type.

Performance

Added phase noise: +1dBc/Hz
Spurious < -80dBc/Hz
Harmonics:
<-30dBc (non-filtered)
<-40dBc (filtered)

AC Power

One (Two with -2R option) 230V AC Power Supply.
CEE 2P + T socket with mains filter.
ON/OFF switch.
Voltage: 85-265VAC / 47-64Hz.
Power consumption:<20W

Temperature

Operating temperature: -20° to 60 ° C
Storage temperature: -20 ° to 70 ° C
Operating relative humidity: 10% to 90% (non-condensing)
Storage relative humidity: 5% to 95% (non-condensing)

MTBF

>150 000 h

Dimensions

Rack 19" 1U, Height 44 mm, Depth 280mm (305mm including connectors)

Weight

< 3.5Kg

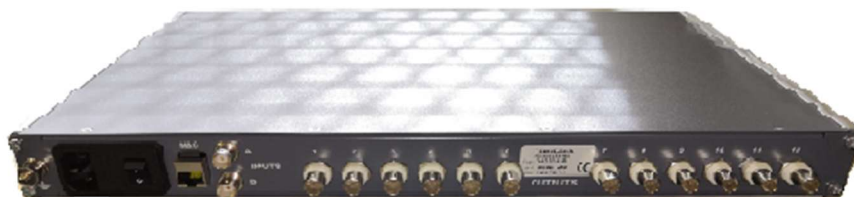
Certification

Certified CE, ROHS, REACH, ITAR Free & EAR99

Options

OPT Gain: specific input level and output level can be configured at factory.

OPT LN: Improved noise figure at the outputs.



TMD2214-R Back Panel

ORDERING CODES:

TMD2214 : Standard model - 1/1 amplification

TMD2214-R : With a Redundant input - 1/1 amplification

TMD2214-2R : With Redundant Input and Power supply - 1/1 amplification

OPTIONS:

OPT VLN: Very Low Noise outputs (See performance summary on table page 1)

OPT UltraLN: Ultra Low Noise outputs (See performance summary on table page 1, 10 outputs)

OPT AG: Adjustable Outputs Gain (See performance summary on table page 1)

OPT Gain Power IN / Power OUT: (Range: to be defined at the order)

Example: TMD2214-2R Opt Gain 0 dBm / 7 dBm

Please contact us for any further option needed