

TMD2312

TMD2313

TMD2314

Redundant 10MHz Low Noise Frequency Switch, Amplifier and Distributor

Redundant frequency Distributor

Automated switch

Remote monitoring and Control

The TMD231X equipment provides switching between two 10MHz frequency sources, amplification and distribution of the selected frequency. The internal amplifier ensures a very low phase noise.

The equipment is a 1U or 2U rack mountable 19-inch unit.

The TMD231X has 10, 12 or 16 independent outputs (depending on chosen form factor and connector type) with different characteristics depending on the option:

- TMD2312 has isolated and filtered outputs
- TMD2313 has non isolated and non-filtered outputs to optimize its phase noise
- TMD2314 has ultra-low noise phase.

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							
	Isolated output	Filtered output	Noise Phase 1Hz	Noise Phase 10Hz	Noise Phase 100Hz	Noise Phase 1KHz	Noise Phase >10KHz
TMD2312	Yes	Yes	-100dBc/Hz	-128dBc/Hz	-140dBc/Hz	-150dBc/Hz	-150dBc/Hz
TMD2313	No	No	-100dBc/Hz	-128dBc/Hz	-140dBc/Hz	-152dBc/Hz	-152dBc/Hz
TMD2314	No	No	-110dBc/Hz	-135dBc/Hz	-150dBc/Hz	-160dBc/Hz	-160dBc/Hz



TMD2312 Front Panel

Specifications

Inputs

Both inputs accept signals level from +10 to +13dBm \pm 1 dBm

Outputs

The outputs provide a maximum level of +13dBm \pm 2 dBm on a 50 Ohm load on the available outputs.

The input / output ratio is 1 ± 1 dBm. Specific gain can be configured on demand.

Switching

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

Redundant AC Power

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

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 SMA female type.

Option BNC is available with 10 outputs instead of 12.

The remote-control connector is an RJ45 type.

Performance

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

Temperature

Operating temperature: -10° 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

BNC connectors (10 outputs instead of 12 outputs for a 1U rack)

16 outputs (implies a 2U form factor)



TMD2313 Back Panel

Ordering Code:

TMD2312: *Isolated and Filtered outputs*

TMD2313: *Phase noise optimized*

TMD2314: *Ultra low noise*

Option -BNC

Please contact us for any further options needed