

# TMD2216

## 10MHz Low Noise Frequency Switch, Amplifier and Distributor

The TMD2216 equipment provides switching between two 10 MHz frequency sources, amplification and distribution of these frequencies. The internal amplifiers ensure a very low phase noise.

The equipment is in the form of a rack shelf 19 inches high 1U.

This model has 16 independent outputs with the following characteristics:

- Isolation between channels >-50 dB
- Harmonics <-30 dB

*Two inputs automated switch*

*16 Outputs*

*Low noise frequency amplification*

*HTTP Monitoring and Control through a web based interface*

### *Remote control*

The remote control of the equipment is done via the network, using HTTP protocol.

It provides information on the equipment status :

- Operating mode
- Track status
- Channel selection

### *Operation*

On the front panel, 2 groups of 3 LEDs, combined with 2 push buttons allow to :

- Select the mode Automatic or Manual
- Select the source in manual mode (Source A or Source B)
- Indicate the selected source
- Indicate the source status



TMD2216 Front Panel

## Specifications

### Inputs

Both inputs accept level signals from +3 to +13 dBm +/-1dBm

### Outputs

The outputs provide a maximum level of +13 ± 2 dBm on a 50 Ohm load on the outputs

The input / output ratio is 1 +/-1dBm  
The outputs are not isolated

### Switching

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

### Redundant AC power

2 \* 230V AC Power supply  
CEE 2P + T socket with mains filter,  
M / A switch  
Voltage: 85-264VAC / 47-440Hz  
Power consumption: <20W to 230VAC  
over 50 Hz per power supply

### Connections

The input and output signals are done via the rear panel of the equipment  
The connectors for the two inputs and the 12 outputs are non insulated SMA Female type  
The remote control connector is an RJ45 type.

### 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)

### Performance

#### Phase noise (with perfect source)

1Hz -110 dBc/Hz  
10Hz -135 dBc/Hz  
100Hz -150 dBc/Hz  
1KHz -155 dBc/Hz  
≥ 10KHz -165 dBc/Hz

Spurious : < -65 dBc  
Harmonics : < -30 dBc

Added Phase Noise : +1dBc/Hz

### Dimensions

Rack 2U 19" Depth 320 mm

### Weight

< 5 Kg

### MTBF

> 150 000h

### Certification

EU, ROHS and ITAR free

### Options

OPT1 : 5 MHz

OPT 3 : Redundant power supply (2U rack)



TMD2216 Back Panel

