Line Filter VF

24 Channel Line Conditioner

The MOD22014 is a 24 channel VF Line Conditioner for interfacing VF ports on telecommunications equipment to telecoms circuits running in close proximity to the electrified rail infrastructure. The Line Conditioner is designed to be used with the Cisco VG350 voice gateway to offer the performance requirements of NR/L2/TEL/30003. A number of variants are available depending upon desired connectorisation on the line side. This can either be via Telco (RJ21) connector or screw terminals. Other variants may be used with other COTS equipment on circuits running in environments with high electrical interference. A variety of cable types and lengths are available to install the line conditioner.

Compact construction in a 19" 1U chassis with direct telecom connectors (RJ21) to host equipment and MDF.

PRODUCT HIGHLIGHTS

- **Enables host equipment to operate within Network Rail's NR/L2/TEL/30003**
- **FXS operation**
- **Low insertion loss / ring attenuation**
- **No configuration required**
- **No power required**
- **Compact 19" x 1U mounting**

Basic Hardware

- 24 x channels
- Impedance nominal 600Z
- Connector equipment RJ21 (50 way)
- 19" mounting

Electrical Rating

- Impedance nominal 600Z
- Line current 50mA
- Ring voltage 70 VRMS @ 25Hz
- Insulation 2KV RMS
- Insulation resistance > 20MΩ

Limitations

- Not suitable for xDSL circuits
- Not suitable for circuits carrying SPM pulses
- Not suitable for ISDN circuits
- Lightning protection should be fitted externally (MDF)

Order Codes

- MOD22014-24
- MOD22014-24-TEL (TELCO RJ21)

Performance

- Filter longitudinal >15dB @ 50 Hz, 20dB/decade roll-off
- Insertion loss speech band < 0.6dB
- Loop resistance <60Ω
- Longitudinal conversion loss (LCL) >70dB 200 to 4000Hz
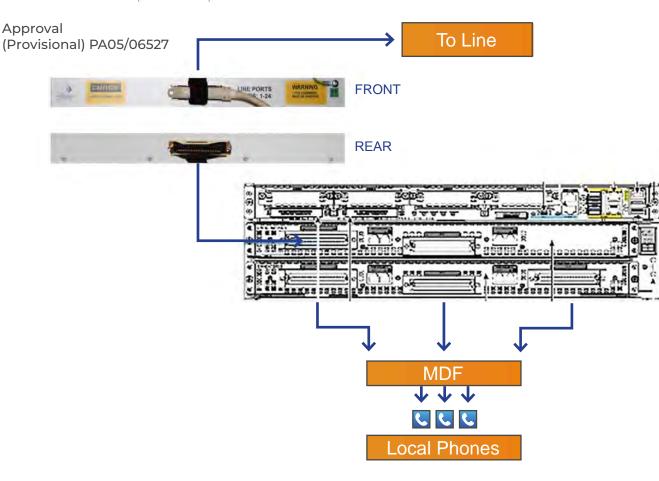- Crosstalk inter channel >80dB
- Return loss >12dB @600Z

Environmental

- Temperature range -20 to +65 °C
- Rugged enclosure IP51
- Humidity 95% non-condensing

Dimensions

- Desktop, or rack mounting
- W x H x D: 444 x 45 x 330 mm; Weight: 9.5 kg

Power

- Passive

Approval
(Provisional) PA05/06527

To Line

FRONT

REAR

MDF

Local Phones