

ANNEXURE:

SCOPE OF WORK:

INTRODUCTION

The scope of this project is for the appointment of a service provider to supply and deliver 6X Third Generation Digital FM Radio Modulation Analyzer and Monitoring Receiver for remotely monitoring Sentech Southern Region FM Sites and be delivered at 15 Munro Road, Port Elizabeth;6000

The unit must entail the following specifications:

Supply and deliver 6X 1U a Third Generation Digital FM Radio Modulation Analyzer and Monitoring Receiver for Sentech .This powerful monitoring system allows for easy and reliable monitoring of the FM signal quality of up to 50 FM radio stations.

With a Loudness Meter, which allows for measurements to be shown as defined by ITU BS.1770-4 and EBU R128 recommendations, the product must supports both standards.

- RF Input: Tuning Range User selectable, 87.1-108 MHz (CCIR), 65-74 MHz (OIRT), 76-95 MHz (Japan),
- Tuning Step: 10, 20, 50, 100 kHz,
- Tuner Sensitivity: 30 dB μ V,
- Antenna Ports: Dual, 2 x BNC Connectors, 50 Ω
- Antenna Ports Isolation > 40 Db
- Internal Attenuator: 0, 10, 20 and 30 dB
- Dynamic range: 100 dB

FM Demod:

IF Filter Bandwidth 15 Increments (25kHz - 157kHz, Auto)

Frequency Response \pm 0.1 dB, 10 Hz to 86 kHz

MPX Power \pm 12 dBr, 20 sec. integration

Dynamic range 90 dB

MPX (Composite) Input:

Connector BNC on rear panel

Impedance 10 k Ω

Frequency Range 10 - 70 kHz; \pm 0.01 dB, 100 - 60 kHz;

Sensitivity 3.5 Vp-p @ 100

Stereo Decoder:

Frequency Response (L&R) ± 0.1 dB, 10 Hz to 15 kHz
SNR (Stereo) 60 dB, 50 μ s de-emphasis
THD 0.15% @ 1kHz, 0.4% @ 10Hz-15kHz, 50 μ s dmph
Separation 50 dB, 50 Hz to 10 kHz, 50 μ s de-emphasis.

Metering Accuracy:

RF Level ± 1 dB, 0 to 100 dB μ V
MPX Power ± 0.2 dBr, -12 to 12 dBr, 0.1 dBr resolution
Total, Pos, Neg ± 2 kHz, 10 to 100 kHz, 1 kHz resolution
Pilot, RDS ± 0.5 kHz, 1 to 12 kHz, 0.2 kHz resolution
Audio ± 1 dB, +10.0 to -55.0 dB, 0.1 dB resolution

Outputs:

Composite 3.5 Vp-p @ 75kHz, 75 Ω , unbal. BNC
Audio (L, R) +12 dBm, 600 Ω balanced XLR Connector
AES3 (L, R) 5.0 Vp-p, 110 Ω , balanced XLR Connector
SPDIF (L, R) 3.0 Vp-p, 110 Ω , unbalanced BNC Connector
Optical (L, R) Transmitter, TOSLINK
Alarms Programmable terminals on rear panel, opto isolated
Headphone 6.3mm (1/4") Phone Jack, +12dBm maximum

Communication Interfaces:

USB B-type Connector
Ethernet 10/100 Base-T RJ45 Connector
GSM Modem 15 pin Male D-Sub Connector

Measurement Storage:

Storage 16GB Build-in Memory Card
Data format Text, CSV

Power:

Voltage 100-240V / 50-60 Hz
Power Consumption 20VA
Connector IEC320, Fused and EMI-suppressed

Size and Weight:

Dimensions (W;H;D) 485 x 44 x 180 mm

Shipping Weight 540 x 115 x 300 mm / 2.700 kg

Contractor to submit data sheet/ specification sheet