

3.1 Description

The 800MHz Tetra band selective (no channelisation) tunnel amplifier is directly connected to an air interface antenna directed towards the base station and a leaky feeder antenna to cover the mobiles in the tunnel. The downlink power is 20Watts, provided by a single power amplifier, and the uplink power device is a single 5W amplifier, which is sufficient power for ample communications with the base station.

Automatic gain control is featured in both paths to prevent overloading of the input stages should a mobile be operated close to the antennas.

An alarm system is in-built into each amplifier to warn of functionality disorders and this is output from the system as a summary, volt-free relay contact pair suitable for integration with any existing loop arrangement.

3.2 Technical Specification

PARAMETER		SPECIFICATION
Frequency range:		866-894MHz (downlink) 821-849MHz (uplink)
Bandwidth:		28MHz
Gain:		>85dB
Gain Adjustment:		0 - 30dB (in 2dB steps)
Uplink Power:		>5.0Watts
Downlink Power:		>20.0Watts
Third order intercept point:		+40dBm (downlink) +54dBm (uplink)
1dB compression point:		+41.5dBm (downlink) +35.5dBm (uplink)
AGC:	Downlink:	+40dBm
	Uplink:	+34dBm
Noise Figure:		<6dB
VSWR:		better than 1.5:1
RF Connectors:		N type, female
Temperature range:	operational:	-10°C to +60°C
	storage:	-40°C to +70°C
Alarms Fitted: (volt-free contacts/TTL)		1 Amplifiers