RPND

Analog/Digital eDMR System Duplex Base Stations RPND in 66-88Mhz

Digital TDMA technology for professionals

Duplex base stations from the RPND series constitute the first infrastructure equipment using digital TDMA technology designed and manufactured by *TPL Systèmes*. At the very heart of the **eDMR** system base on **eDMR** protocol, highly spectrum-efficient RPND duplex base stations are able to provide two audio communications and one data communication at the same time in a 12,5 kHz channel spacing between digital terminals.

In networks where analogue and digital terminals coexist, these duplex stations RPND, can also handle communications between analog terminals thanks to their dual mode concept.

Endowed with their own intelligence through the Simplified Node Centre (CNS) built into the base stations themselves, they are capable of handling various call types, terminal registration/de-registration procedures, alarm and GPS data information as well as controlling various types of interconnections between base and repeater stations.

RPND base stations can be connected to a DMS (**eDMR** Management System) which is in charge of the configuration, management and maintenance of the system or indirectly to an **eDMR** Switch Central (DSC) supervising several base stations in a multi-cell radio network.

Features

Types of modulation	Transmitter
- Digital TDMA- 4FSK - Phase modulation (11KOG3E) - Analog selective calling (CTCSS, etc.) - Digital selective calling	- 4 programmable power levels: 5 / 10 / 15 / 25 W - Frequency stability ≤ 5 ppm - Analog residual noise < - 50 dB - Transmit power consumption < 5 A
Services	**Radio features**
- Voice services: individual and confidential voice calls, group calls (static and dynamic), emergency calls, PABX, IPBX, PSTN. - Group services: Group activation/deactivation, grouping of several groups. - Mobility services: terminal registration/deregistration, automatic cell selection. - Data services: status messages, short messages, data transmission at 9.6 Kbps (gross rate) - Other services: call priority, automatic downgrade mode, remote maintenance via PSTN and Ethernet, application software download	General - Frequency bands: 30-50, 68-88, 146-174 MHz - Operation : Duplex - Channel spacing: 12.5 - 20 - 25 kHz - Maximum power: 25 W - Power supply: 10.8 to 15.5 V - Data rate: 9.6 Kbps - Call set-up time: 250 ms - Operating temperature : -10°C to +70°C
Other features	**Receiver**
- Dimensions and weights: Depth: 180 mm, Width: 177 mm, Height: 38 mm, Weight: 1.5 Kg	- Sensitivity for 40 and 80 Mhz (under normal conditions) : Analog: < -115dBm @20dB SINAD Digital: < -116dBm at 1% BER*. Sensitivity for 160 Mhz (under normal conditions) : Analog: < -114dBm @20dB SINAD Digital: < -115dBm for BER* 1% Intermodulation protection: > 70 dB Standby consumption: 300 mA
Conforms to standards	
- FCC part 90 (Q1 2021) - Directive RED - ETS 300 086 - 300 113 - ETSI 300 279 - EN 55022-55024	

*BER : Bit Error Rate