

HIGH PERFORMANCE TRUE DIVERSITY RECEIVER

Main Features

- Up to 232 MHz bandwidth in 470/798 MHz range
- **TRUE DIVERSITY RECEIVER** with 2 whip antennas
- **NARROW-BAND** and **WIDE-BAND modulation** (*SW selectable*)
- **Multi-compander** for compatibility with Wisycom transmitters MTP40S/MPT41S/MTK952
 - **ENR** (Wisycom Extended-NR) noise optimized
 - **ENC** (Wisycom Extended-NC) voice optimized & with reduced pre-emphasys
 - **ENS** sound optimized
 - **IFB** (ENR-Narrow band)
 - **IFB-ENS** (ENS-Narrow band)
- **Long lasting battery life**
 - Up to 9,5 hours with Ni-MH Enloop Pro NiMh
 - Up to 9 hours with Li-thium Klic-8000
 - Up to 7h with Alkaline Energizer
- Miniature design with 2 AA battery pack integrated (body-pack form factor) or rechargeable lithium pack
- Easy to use thanks to an OLED display
- Dedicated function buttons & frequency scan function
- Automatic receiver programming thru infrared and micro-USB



GENERAL DESCRIPTION

MPR50 is a compact true diversity receiver designed for professional IFB monitoring applications.

This receiver features a real **TRUE DIVERSITY** configuration along with a unique wide-band tuning range up to 232 MHz.

The receiver is especially design to have maximum long lasting battery life and a complete compatibility with Wisycom transmitters.

Very easy and versatile thanks to its Oled display, navigation button controls, infrared and automatic scan.

Battery management is very flexible since MPR50 allows use of standard battery pack:

- 2 AA NiMH or Alkaline
- C3-V3 battery pack
- KLIC 8000 or CR-V3R lithium (i.e. DR9708 duracell)



Charging can be done with dedicated charger or thru the integrated micro-usb-B connector.

TECHNICAL DATA

Frequency ranges	470 ÷ 700 MHz other ranges are available on request
Switchable channels	2400 managed in 40 groups of 60 frequencies completely user customizable
Switching-window	230 MHz
Frequencies	microprocessor controlled frequency synthesizer circuit, with 25 kHz minimum step; frequencies is easily PC reprogrammed with USBmini interface or optional UPKmini programmer
Frequency error	< ± 2.5 ppm, within the rated temperature range
Diversity technique	true-diversity
Modulation	FM mono, wideband or narrowband IFB (SW selectable)
Peak deviation	±40 kHz (narrowband), ±56 kHz (wideband)
“A” / “B” antenna inputs	with SMA connectors
Antenna input impedance	50 ohm sma type (SWR < 1:2; typ. 1:1.4)
Sensitivity	2 µV (6 dBµV), for SND/N > 52 dB; in the whole switching-window **
Co-channel rejection	> 2.5 dB
Adjacent chan. selectivity	> 80 dB typical (for channel spacing ≥ 400 kHz in wideband, ≥ 200 kHz in narrowband).
Spurious rec. rejection	> 100 dB
IF image rejection	> 90 dB
Intermod. rejection	> 76 dB
IIP3	> +10 dBm typical
Spurious emissions	< 2 nW (typical = 0.1 pW)
Noise Reduction system	ENR (Wisycom Extended-NR) noise optimized ENC (Wisycom Extended-NC) voice optimized & with reduced pre-emphasys ENS sound optimized IFB (ENR-Narrow band) IFB-ENS (ENS-Narrow band)
AF bandwidth	30 Hz ÷ 15 kHz
Frequency response	± 0.5 dB in the 30 Hz ÷ 15 kHz range
Distortion	0.3 % typical
SND/D ratio (Analogue)	90 dB typical**
Headphone-output	Stereo Plug 3.5mm(TRS) Locking (M6 x 0.5 thread) with 2 X 75mW @ 32 Ohm
Managing interface	Infrared/micro-USB
Display	OLED 128x64 (white)
Front buttons	Simple operation with 4 buttons to quickly monitor and setup the receiver. One touch function for a frequency scan and sync function.
Powering	2 x IEC-LR6 1.5V size-AA alkaline or rechargeable elements
Battery life	9,5 hours (Ni-MH batteries), 9 hours (lithium batteries), 7 hours (alkaline batteries)
Temperature range	-10 ÷ + 55 °C
Dimensions	91mm x 71.5mm x 27mm (HxWxD) with clip
Weight	100 g approx. without batteries

** RMS value, A-weighted, 22 Hz / 22 KHz, and referred to the peak deviation

The MPR50 receiver complies with ETSI specifications: ETSI 300 422.