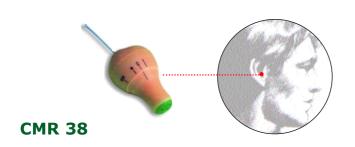




WIRELESS STSTEMS FOR COMMONICATION

wireless-communication systems

MicroEar TALK-BACK SYSTEMS



CMR 38

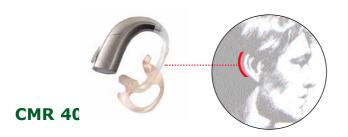
MicroEar (in ear) VHF receiver

- VHF band (140 ÷ 250 MHz)
- 1 fixed frequency

CMR 38-HV

MicroEar "high volume" (in ear) VHF receiver

- VHF band (140 ÷ 250 MHz)
- 1 fixed frequency
- New audio amplifier design, assuring high listening power.



CMR 40

MicroEar BTE (Behind The Ear) VHF receiver

- VHF band (140 ÷ 250 MHz)
- 1 fixed frequency
- Very high sensitivity and large operation range
- Excellent audio quality
- Long battery life



MicroEar transmitter for both "desktop" and "in 19"/1U rack"use

- VHF band (140 ÷ 250 MHz)
- 16 switchable frequencies
- High output power (300 mW)
- It assures the top receiving quality from *MicroEar* receivers thanks to the special audio treatment of the modulation.
- Provided with PTT (Push To Talk) and (optional) VOX (Voice-controlled operation).

The CTK 38 "desktop" system is composed by:

- ⇒ CST 38, VHF transmitter
- \Rightarrow PSP 910, mains-connector power-supply
- ⇒ AWN 38, VHF whip antenna (or other type)



CST 38



CTK 383

CTK 383

"3 transmitters multiple" in 19"/1U rack-frame multi-channel modular transmitter system

The CTK 383 "desktop" system is composed by:

- ⇒ CST 38, (max 3) VHF transmitters
- ⇒ RST 373, 19"/1Ú rack-frame with mains power-supply
- ⇒ AGN10-V (one for each transmitter), VHF antennas (or other type)

wireless-communication systems



MicroEar TALK-BACK SYSTEMS

CST 38 MicroEar VHF TRANSMITTER

for both "desktop" and "in 19"/1U rack" use



 Switchable channels 16, preset in the $140 \div 250$ MHz range [1].

 Switching-window 10 MHz.

microprocessor controlled PPL synthesizer Frequencies

circuit, with 25 kHz minimum step. They can be easily reprogrammed by DOS-PC

and optional "UPK 32 Programming kit".

< ±5 ppm, in the rated temperature range. • Frequency error

-10 ÷ +55 °C. Temperature range

300 mW (± 1 dB) [1]. · RF output power · RF output impedance 50 ohm (type N-F connector).

 Spurious emissions ⇒ armonic = < 250 nW,= <90 dBc. → other

remote PTT (Push To Talk) circuit, wired to rear Transmission activation

(6.3 mm) standard jack connector. The transmission is allowed when the central pin (hot) is connected to external ring (ground). When the plug is not inserted, the transmission is still activated. Optionally, the TSC38 can be supplied with VOX circuit (voice-controlled operation).

 Modulation FM, linear (peak deviation = ± 5 kHz). transformer balanced, floating. Mod. audio input

Micro/Line switchable, and adjustable: · Mod. audio input level

 $= -64 \div -34 \text{ dBu } (0.5 \div 15 \text{ mV})$ ⇒ <u>Micro</u>

 $= -22 \div +8 \text{ dBu } (60 \div 1,950 \text{ mV}).$ \Rightarrow <u>Line</u>

· Audio input impedance ⇒ Micro = > 2 kohm = > 10 kohm. \Rightarrow Line

· Peak-limiter automatic, with > 30 dB overload capability over the nominal modulation.

compressor circuit with noise-gate,

• NR system

specially adapted to the MicroEar receivers. AF bandwidth

200 Hz ÷ 5 kHz (-3 dB). < 0.5 % (0.25% typ.). Distortion

 SND/D ratio > 80 dB (83 dB typ.), CCITT measured.

⇒ Transmitter On (red LED) LED indications

(yellow LED). ⇒ Limiter On

 \Rightarrow 10.5 ÷ 16 Vdc, 300 mA max.(neg. ground); Power

 \Rightarrow mains 100 \div 240 Vac

(with optional power supply) Dimensions 40 x 120 x 175 mm.

 Weight 700 g approx.

NOTE [1]: according to local regulations

OPTIONAL ACCESSORIES:

AMN 05-V VHF magnetic-base antenna (5 m cable). CDC 150 External 12 Vdc feeding cable (150 cm) **UPK 32** Working frequencies user programming kit VXX xx Carriyng case for customer's system (on request)

To employ the CST 38 transmitter as "desktop" unit, you need:

PSP 910 - MAINS-CONNECTOR POWER SUPPLY

 Power 100 ÷ 240 Vac / 20 VA max. Output power 12 Vdc / 700 mA max. • Size 70 x 40 x 25 mm.

 Weight 150 q.

AWN 38-V - VHF WHIP ANTENNA

 Connector : N-M type, right angle.

To employ the CST 38 transmitter as "in 19"/10 rack-frame" unit, you need:

RST 373 - 19"/1U RACK-FRAME

(for max. 3 x CST 38 units), with built-in: MAINS POWER SUPPLY MODULE

: 230 Vac / 30 VA max. Power Output power

12 Vdc / 1.4 A max. 19"/1U - 300 mm depth. / 2.0 kg. approx. · Size / Weight

AGN 10-V - VHF GROUNDPLANE ANTENNA

 Radiation/Polarization omnidirectional/vertical

Connector N-F type

Body size [3] diameter = 78 mm max - length = 73 mm.

• Weight [3] 0.4 kg approx. Mounting system 3/8" standard screw

Supplied cable RG213 type (10 m) with N-M connectors

NOTE [3]: except radiant elements.

CMR 38 - MicroEar VHF TALK-BACKRECEIVER

 Channel 1, preset in the 138 ÷ 190 MHz range Receiver type single conversion superheterodyne. Modulation narrowband FM (peak deviation = 5 kHz).

> 50 dB (150 kHz spacing). · Adjacent channel rejection: Sensitivity

< 2 mV/m, for 10 dB SINAD Antenna internal, magnetic.

 Battery zinc-air, type A10 (230) - 1.3 V. Battery life 15 to 30 hrs. Current consumption 1.5 mA @ 1.2 V (squelch ON).

200 Hz \div 4 kHz. Audio bandwidth

 Distortion THD < 3% (FM dev. = 3 kHz @ 1 kHz).

· Audio output power max: \Rightarrow 103 dB SPL

 \Rightarrow 114 db SPL ("high volume" version). (with FM dev. = 3kHz @ 1kHz)

• Speaker type electromagnetic. Size 17.5 x 11 x 5 mm. Weight 1.4 g (battery included).

CMR 40 - MicroEar BTE VHF TALK-BACK RECEIVER

Same specifications as for CMR 38, except

 Battery zinc-air, type 13 HPX - 1.4 V. · Battery life 150 h Stand by/ 80 h On.

• Current consumption @1.2V: 1.5 mA squelch-On / 3.0 mA squelch-Off.

 Audio bandwidth 200 Hz ÷ 5 kHz. \Rightarrow 103 dB SPL • Audio output power max:

(with FM dev. = 3kHz @ 1kHz) \Rightarrow 115 db SPL ("high volume" version). • Weight 5.8 g (earpiece & battery included).

 ϵ subject to change without notice

