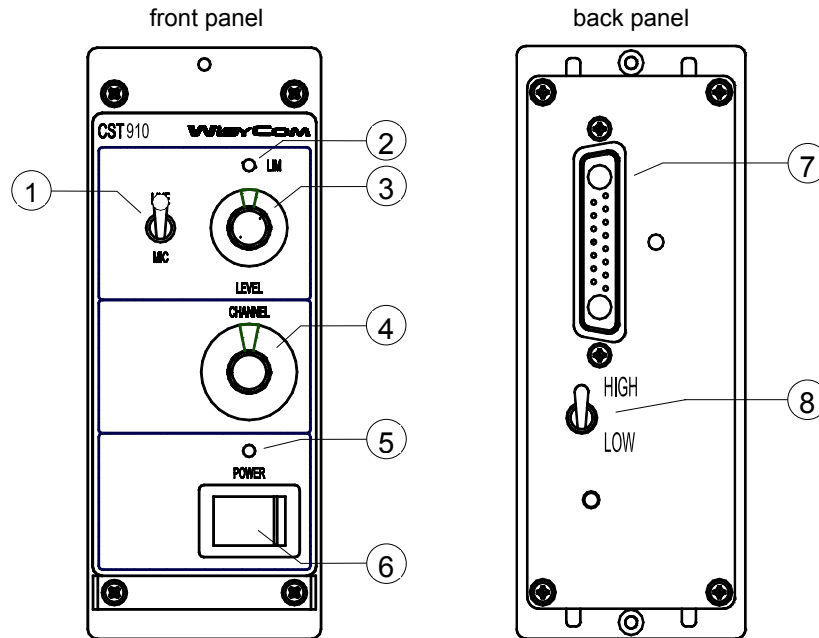


**WIRELESS-COMMUNICATION SYSTEMS
CST 910 - UHF TRANSMITTER MODULE**



- 1) SELECTOR: modulation audio input level range (**Micro / Line**).
- 2) LED INDICATION: peak-meter / limiter-on status (yellow Led).
- 3) ADJUSTMENT: audio input sensitivity.
With the optimum sensitivity adjustment, the yellow Led [2] must flash under modulation peaks.
- 4) SELECTOR: transmitting channel ($0 \div F$).
- 5) LED INDICATION: apparatus is on (red Led).
- 6) SWITCH: ON / OFF (**Power**).
- 7) MULTIPOLE CONNECTOR.
 - RF output (coax connector).
 - Ground (pin 2 + 10).
 - DC powering input, 10.5 ÷ 16 Vdc (pin 1 + 9).
 - Modulation AF signal line-input (pins 6 & 14). The line-input is transformer balanced and floating.
 - Frequency programming pins: pin 4 = +5V-EXT; pin 7 = SDA-EXT, pin 15 = CK-EXT.
 - Input/output control signals (optional):
 - PTT - (pin 3). It allows to remote activate the carrier trough an external contact.
The carrier activation is done closing to ground (or opening, depending on the pre-setting) the pin 3.
 - SYNC - (pins 5 & 13). If the optional "master" board is mounted, the pins 5 & 9 are feeding the composite signal (modulation and frequency reference) for the control of the "slave" transmitters.
 - ACK - (pin 11). Input for the "acknowledgment-tone" activation; only for systems with PTT function.
- 8) SELECTOR: HIGH-POWER / LOW-POWER (**High / Low**).
The corresponding values of the output power can be pre-set on the unit.

**CST 910 - UHF TRANSMITTER MODULE
FOR WIRELESS-COMMUNICATION SYSTEMS****TECHNICAL SPECIFICATIONS:**

- Switchable channels : 16, preset in the 400 ÷ 520 MHz range (others on request)
- Switching-window : 7 MHz (others on request)
- Frequencies : microprocessor controlled frequency synthesizer circuit, with 5 and/or 6.25 KHz minimum step.
- Channel spacing : 12.5 or 20 or 25 or 50 KHz [1].
- Frequency error : < ± 2 ppm, in the rated temperature range
- Temperature range : -10 ÷ +55 °C
- RF output power : 2 W ÷ 300 mW (± 1 dB). Two output power levels can be externally pre-set (**High / Low**)
- RF output impedance : 50 ohm
- Spurious emissions : < 2 nW
- Modulation : FM (nominal deviation = ±1.7 or ±2.5 or ±3.3 or ±6.5 KHz, depending on the channel spacing)
- Audio input : transformer balanced, floating or grounded selectable.
- Audio input level : **Micro / Line** switchable, and externally adjustable between:
 - ⇒ **Micro** -54 ÷ -23 dBu (1.5 ÷ 55 mVrms)
 - ⇒ **Line** -23 ÷ +8 dBu (55 ÷ 1950 mVrms).
- Audio input impedance: ⇒ **Micro** > 2 kohm
⇒ **Line** > 10 kohm.
- Peak-limiter : automatic, with dynamic-range > 20 dB over the level set for the nominal modulation.
- NR-system : compander circuit, pre-set in NR (Standard-NR) mode or excludable.
- Pre-emphasis : 75 µS or 750 µS or off (to be compatible with units of other brands).
- AF bandwidth : ⇒ 300 Hz ÷ 2.5 KHz (-3 dB), for 12.5 kHz channel spacing;
⇒ 300 Hz ÷ 3.3 KHz (-3 dB), for 20 kHz channel spacing;
⇒ 300 Hz ÷ 4.5 KHz (-3 dB), for 25 kHz channel spacing;
⇒ 300 Hz ÷ 7.5 KHz (-3 dB), for 50 kHz channel spacing.
- Distortion : < 0.5 % (0.25% typ.).
- SND/D ratio : > 80 dB (83 dB typ.), CCITT measured.
- Led indications : ⇒ Transmitter On (red Led)
⇒ Limiter On (yellow Led).
- Powering : 10.5 ÷ 16 Vdc, 850 mA max. (negative ground).
- Dimensions : 123 x 49 x 300 mm (n. 1 module).
- Weight : 1 kg approx.

NOTE [1]: according to local regulations

The standard version of CST 910 complies with the following ETSI specifications:

- ⇒ ETS 300 086: versions with 12.5, 20 or 25 KHz channel spacing;
- ⇒ ETS 300 454: version with 50 KHz channel spacing (useful on frequencies > 470 MHz).