



UHF- FM Synth. Power Transceiver **70TRX-TP**

The new designed FM power transceiver module **70TRX-TP** from HM-Funktechnik is an **absolut high end** module with internal synthesizer and microcontroller to convert the external 8 bit wide channel information into the serial data protocol for the synthesizer chip. No complicate programming is needed. The module offers **139 channels** in the european 70cm ISM frequency range from **433.05 to 434.79 MHz** and corresponds to **EN 300086** demands.

Upon request it is also available for frequencies within the range from **410 to 510MHz** and a switching bandwidth of 5 MHz max. The dual conversion system is simply a must for high end applications. The module has a remarkable selectivity, which allows its use in applications where several modules must be operated locally and on adjacent radio channels at the same time.

The **excellent** RF sensitivity of **-116dBm** by CCITT weighting allows its use for long distance signal transmissions.

The direct audio signal output doesn't restrict its use for any kind of coding. Any type of recommendable signal can be used, even direct audio signals, e.g. speech.

The combination with another transceiver-module **70TRX-TP** offers the user a perfect radio system with long distance communication at half-duplex. Together with our remote control unit **FSM24** you can reach **3300 m and more** at free sight.

Features

- Narrow band multi channel power transceiver
- very small size
- low current consumption
- Data rate up to 9600 Bd
- No licence required
- compliance to R&TTE (99/5/EG), **ETS 300 086**

Applications

- Remote control systems
- Industrial applications
- Telemetry systems
- Alarms
- Security systems



Real size



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Specifications:

Communication	Half-Duplex	
Frequency range	433.0625 – 434.7875 MHz	12.5 / 25 KHz step
	optional 410 – 510 MHz	Step selectable
Number of channels	139 (Standard ISM)	max. 256
Output power	160 mW at 50 Ω / 5 V	200 mW at 50 Ω / 6 V
Modulation	FM narrow band	analog and digital
Data input level	5 V _{pp} (TTL)	
Deviation	\pm 2.5 KHz (\pm 300 Hz)	by sinus with 5 V _{pp}
Receiver type	Double Superhet	
Sensitivity	at least –116 dBm	for 12dB SINAD (CCITT filtered)
Selectivity	15 KHz channel bandwidth	
NF-output	1 V _{pp}	inverted
Data rate	DC – 5 KHz (9600 Bd)	
Temperature range	- 25 °C.... + 75 °C	
Supply voltage	5 – 8 V	max. 4.6 – 12 V (only with duty cycle)
Supply current	70 mA (\pm 5 mA) Receive	330mA (\pm 30 mA) at 5V Transmit 350mA (\pm 30 mA) at 6V Transmit
Dimensions	51.8 x 31.6 x 15 mm	with lashes 61.8 x 31.6 x 15 mm
Weight	30.6 g	
Material	Stainless steel	with M3 mounting lashes
Antenna	SMA	optional SMB or MCX
Outputs	Mute, RSSI, Lock Detect	
Approvals	R&TTE (ETS 300 086)	Europe (433.0625 – 434.7875 MHz) (448.150 MHz)