

# UHF Narrow Band Multi Channel Transceiver STD-302Z 458MHz

The UHF FM narrow band semi-duplex radio module STD-302Z 458MHz is suitable for industrial remote control application and telemetry application operated in 458MHz ISM band. SAW filter and narrow band technique provides reliable data communication in industrial applications where interference rejection and practical distance range is required. Suitable for feedback systems.

## Features

- 10mW RF power
- Programmable RF channel
- Receiver sensitivity -119dBm
- Excellent vibration and shock resistance / Mechanical durability
- FM narrow band
- Category 1 (EN300 220)

## Applications

- Industrial remote control system
- Telemetry system
- Data transmission



## General

Parameter	Specification
Communication form	Half duplex
Frequency	458.525 to 459.175 MHz
Channel step	25 kHz Channel Programmable
Frequency stability	+/- 3.5 ppm (-20 to +60 degree C)
Data rate	9600 bps max (pulse width min. 100us, max 15ms)
PLL reference frequency	21.25 MHz
PLL response	30ms typ. (from PLL setting to LD out)
PLL input method	PLL serial data with lock detect indicator output
Modulation	FSK
Supply voltage	3.0 to 5.5 V
Supply current	44mA (TX) 28mA (RX)
Operating temp. range	-20 to + 60 degree C (Storage : -30 to + 75 degree C)
TX/RX switching time	15 ms typ. (DI vs valid DO at the same frequency)
Dimension	30 X 50 X 9 mm
Weight	25g

## Transmitter part

Parameter	Specification
Transmitter type	PLL synthesizer
RF output power	10 mW at 50 ohm
Deviation	+/- 2.75 kHz (PN9, 9600bps)
DI input level	L = GND, H = 3 V to Vcc
Residual FM noise	0.17 kHz

## Receiver part

Parameter	Specification
Receiver type	Double superheterodyne
Receiver category	Category 1 (EN300 220)
IF	21.7 MHz (1st), 450 kHz (2nd)
Maximum input level	10 dBm
Receiver sensitivity	- 119 dBm (12 dB SINAD) - 116 dBm (BER 1%) - 110 dBm (0 error / 2556 bits)
DO output level	L = GND, H = 2.8 V

Specifications are subject to change without prior notice

## Interface

