

100W TRANSCEIVER

- FROM 1W TO 100W IN TP RADIO ENCLOSURES

 **TPRADIO**

DATASHEET



Available in both 2H 19" rack & Closed enclosure BK001 setup

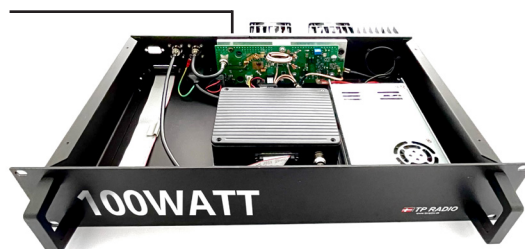
The 100W series of base stations & repeaters are designed for continuous operation under harsh climatic conditions and are available for PMR frequencies at the VHF & UHF frequency band for two-way voice and data communication. The setup is also available for remote control.

The internal design for both enclosures are modular to house different transceivers, modules, I/O interfaces and control units making a TP Radio Base/Repeater very versatile.

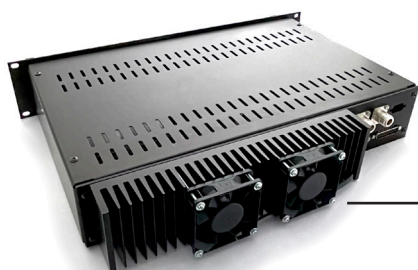
The 100W option can be configured to fit a **customers exact requirements** in terms of: Frequency Band, Mode of Operation, Signalling System, Data or Voice or a combination of both, Supply Voltage / UPS and Output Power. As a stand-alone repeater or as a base station with or without repeat function.

In order to ensure the **highest quality and reliability of the products**, each TP Radio transceiver is exposed to an extensive final test procedure, which includes exposing the transceiver to a temperature cycle ranging from - 25 °C to + 55 °C before leaving the factory.

The 100W powermodule is adjustable in steps of 1W, 25W, 50W, 75W and 100W - And can be combined with most TP Radio Base/Repeater setups.



Active cooling on backside of 2H 19" rack. The fans are controlled by temperature and only runs when activated.



HIGHLIGHTS

- Adjustable power output
1 - 100 Watt
- Turn-Key unit
Ready for use, just plug in power and antenna
- RF bandwidth
VHF: 145 - 174 MHz
UHF: 400 - 470 MHz
- Channel spacing
12,5 / 20 / 25 KHz
- Multi channels
- Easy to setup / plug & play
- Continuous operation
- CTCSS signalling / carrier controlled repeater
- Available in various configurations
- Weatherproof cabinet for wall mounting(Only BS2000 enclosure)
- Temp. Range
-20 °c to +55 °c
- Highly flexible built with a modular design
- Durable construction (Aluminium)

PROFESSIONAL RADIO COMMUNICATION

Conforms according to the directives: RoHS 2011/65/EU, MED 2014/90/EU & RED 2014/53/EU.
 Applied standards: EN 300 086 - EN 300 720 (Analog part) - EN 300 113 - EN 300 219 - EN 3001 489

General	UHF II	VHF 2m	
Frequency Range	400-470 MHz	145-174 MHz	
Number of channels	up to 32, option 127		
Channel spacing	12.5, 20 or 25 KHz		
Frequency error	± 2 ppm		
Mode of operation	Simplex / Semi-duplex / Duplex		
Antenna impedance	50 Ohm		
Temperature range	-20° to + 70°C		
Power supply	13.5 V Nominal.		
Dimensions	BS2000 H. 530, W. 320, D. 125 mm (BK001)		
	2H 19" rack H. 90, W. 480, D. 380 mm		
Weight	Setup depending		
Transmitter			
Output power	100 Watt TP Radio Power module		
Adj. Channel power	1 - 100 Watt		
Intermod. attenuation	78 dB below carrier		
Spurious conducted	40 dB (70 dB with circulator)		
Spurious radiated	less than - 40dBm		
Max. Deviation	less than - 45dBm		
Modulation distortion	+/- 5 KHz / 25 KHz channel		
Signal / noise ratio	< 2 % @ +/- 3.0 KHz		
AF freq. Response	45 dB		
Current drain	300 - 3000 Hz + 6 dB octave		
TX Power	25 W (6.5 A), 50 W (10 A), 100 W (20A)		
Standby	190 mA @ 13,5 V		
			Receiver
			1. Intermediate freq. 45 MHz
			2. Intermediate freq. 450 KHz
			Sensitivity @ 20 dB VHF: 0.5 µV UHF: 0.6 µV
			AF output power 4 W
			AF distortion < 10 %
			AF freq. Response 300 - 3000 Hz - 6 dB / Octave
			Signal / noise ratio > 45 dB
			Co-channel rejection - 3 dB
			Adjacent channel selec. > 73 dB
			Spurious rejection > 75 dB
			Intermodulation sel. > 70 dB
			Blocking > 100 dB
			Spurious conducted > - 60 dBm
			Spurious radiated > -70 dBm
			Squelch level Internal adjustable level
			Power Supply
			110/120 or 220/240 VAC 50/60 Hz, or 13,5VDC - max. 23 A.
			Emergency or back-up power supply according to customer specifications.
			The total power consumption is dependent of the modules used.
			Signalling
			Standard systems CCIR / ZVEI / EEA / CTCSS & DTMF.
			Data transmission: FFSK 1.200, 2.400 & 4.800 bps. GMSK: 9.600 bps. on 25KHz channel spacing.

The UHF version is in conformity for On Board Communication according to EN 300 720 and fulfils the IEC 60945 marine standards. A perfect tool to fulfilment of the SOLAS requirement.

CONFORMS ACCORDING TO THE DIRECTIVES: RoHS 2011/65/EU, MED 2014/90/EU & RED 2014/53/EU - IP54 WEATHERPROOF CABINET.
 APPLIED STANDARDS: EN 300 086 - EN 300 720 (ANALOG PART) - EN 300 113 - EN 300 219 - EN 3001 489



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TP Radio reserve the right to amend specifications without prior notice.*