

TTM, Test Transmitter, GSM 1800

Technical Specification



Note! Changes to this specification as a result of ongoing developments may be made without notice.

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1. General Information

- 1.1 The test transmitter (hereafter called TTM) is intended for use with the test measurement receiver (TMR) for the 1800MHz GSM1800 system.
- 1.2 The TTM transmits a CW signal for propagation measurements.
- 1.3 The TTM is designed for use under the environmental conditions that may be found during a field survey.
- 1.4 It may be used outdoors, but it should be protected against heavy rain and also direct sunlight if the temperature is expected to be above 35 degrees Celsius.
- 1.5 The output signal can be FM-modulated with different frequencies to allow a user to distinguish between different transmitters by listening to the demodulated audio tone.

2. Physical data

- 2.1 Weight: 7 kg
Size: 330x190x280 mm (WxDxH)
Temp range operating: 0 - +50 degrees Celsius
Temp range storage: -30 - +70 degrees Celsius
- 2.2 The TTM is housed in a rugged aluminum housing with a carrying handle on the top and on one side.
- 2.3 All connectors are equipped with protective caps.
- 2.4 The handles on the right and left sides of the TTM may be used as a lift loops for a rope.
- 2.5 The TTM may be transported and used in any position. However the cooling air inlets and outlets have louvers that stop rain from above to enter the unit. If placed on side or upside down, some other protection is required. Also, under heavy rain conditions additional protection is required.
- 2.6 A storage box for protection during transportation is included .The box has room for the power cables. Weight approx. 4kg.

3. Power Supply data

- 3.1 External Power supply DC: 12V nominal (10.5-15V) max 120 Watt
External Power supply AC: 85-265V AC 50-60Hz max. 100 Watt
- 3.2 Both inputs can be connected simultaneously.
- 3.3 The TTM has automatic circuit breakers on both power supply inputs.
- 3.4 Inputs are protected against overvoltage and reverse connections.
- 3.5 The TTM is well protected against EMI and conforms to the requirements of the European EMC directive.

4. Transmitter data

- 4.1 Transmitter frequencies: GSM1800 downlink: 1805.2-1879.8 MHz at 200kHz steps
Transmitter channels: 512-885 (downlink)
Frequency accuracy: <2 kHz (0-50 degrees Celsius)
Frequency drift: <2 kHz / year
Transmitter power: Settable in the range 0.5 to 15 Watts.
Max reverse power: 2W
Spurious and harmonics: < -50dBc
Power level stability: ±0.5 dB
Power meter accuracy: ±0.3 dB
Output impedance: 50 ohm
Output connector: type N
Modulation: 0, 400, 1000 or 2500 Hz FM (typ 3kHz max 5kHz deviation)
- 4.3 The frequencies for all channel numbers of the system are listed on a chart supplied with the TTM.
- 4.2 The frequency is selected by setting the channel number on a thumbwheel switch. The channel numbers used are those specified for the system.
- 4.4 The forward or reflected power is displayed on a pointer instrument on the panel of the TTM.
- 4.5 The RF Power is turned on or off with a key switch and/or a 24-hour battery backed timer.

5. Remote Control

- 5.1 All settings and readings of the TTM (such as on/off, channel nr, power level, modulation etc.) may be controlled remotely via an RS232 connection. This connection may for example be taken to a modem for remote control of the TTM.
- 5.2 The remote connection is a 3-wire connection made via a 4-pole AMP CPC type connector. An adapter cable with a 9-pole D-Sub connector is included.

6. Accessories

Available accessories are as follows:

- 6.1 Standard accessories: Wooden storage box
Mains cable
12 V cable
RS232 adapter cable
Operator's manual
Frequency chart
- 6.2 Optional accessories: Box with:
4+8+16m antenna cables
2 female to female type N joints
25m mains cord on a bobin
Tarpaulin 2x3 meters
2 load strappers
- 6.3 Telescope mast adjustable 1.5 - 7 meters with:
3 bracing wires
3 pegs for the bracing wires
Foot plate
Hand sledge
- 6.4 0dBd Antenna for mast mount
- 6.5 6dBd Antenna for mast mount