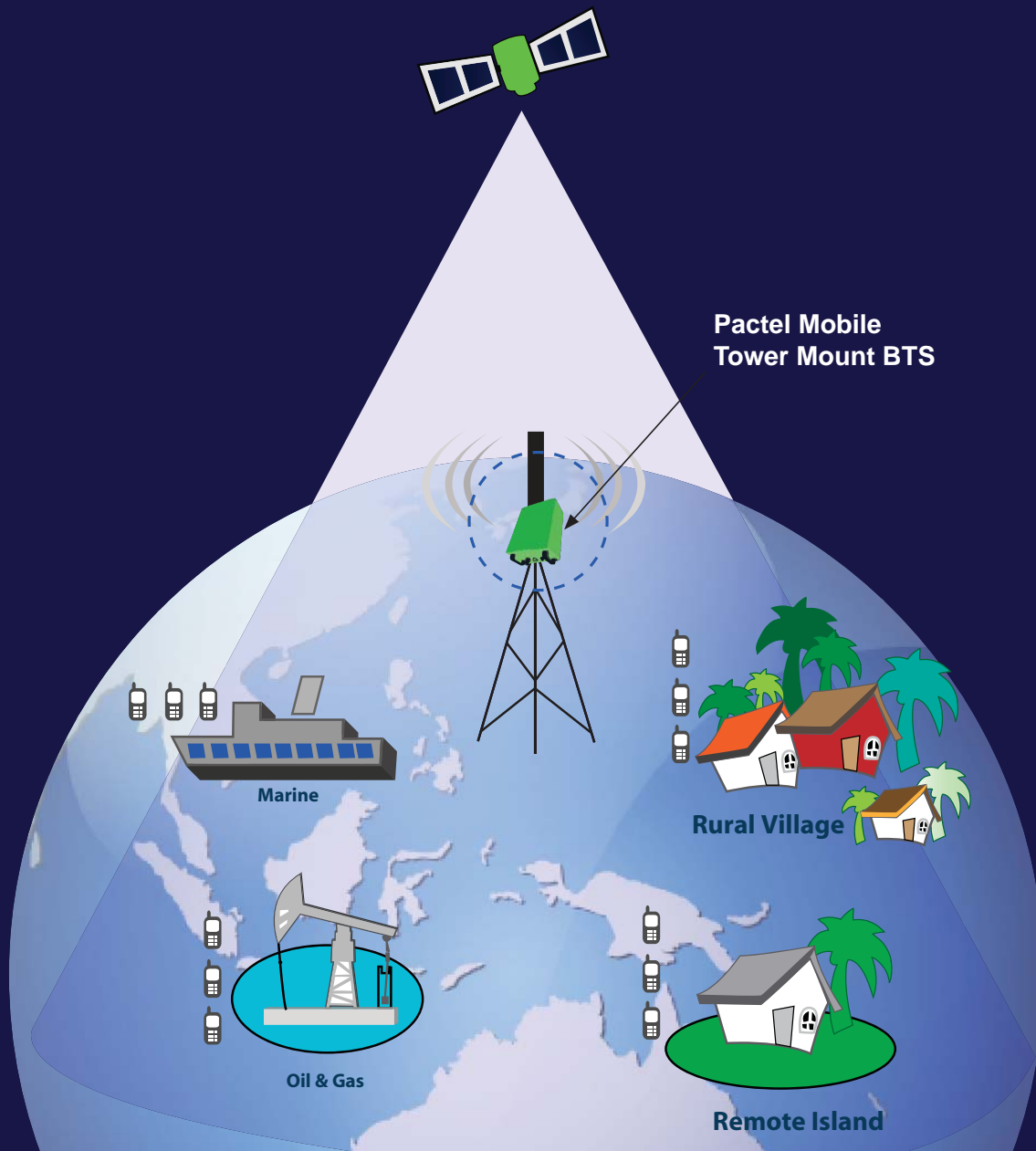


# GSM Tower Mount Base Transceiver Systems



Pactel Mobile  
Tower Mount BTS

Marine

Rural Village

Oil & Gas

Remote Island

**pactel**  
MOBILE

CONNECTING YOU IS WHAT WE DO

**Pactel TMBTS are designed to facilitate cost-effective GSM deployment in rural or currently unserved areas.**

These units are extremely simple to install, requiring only Power and Ethernet connections to be run up their mounting pole.

Key advantages are:

- ✓ Pole-top mounting keeps antenna cables short, ensuring maximum efficiency is obtained from each unit.
- ✓ Power consumption is low (approximately 1/3 of competing units), ensuring compatibility to Solar installations.
- ✓ The design is ruggedised to suit even the most extreme environments.
- ✓ Only an IP connection is required (e.g. via Internet, Satellite, ADSL), making backhaul as simple as possible.
- ✓ IP backhaul is encrypted for security and safe traversal of your Intranet and compressed for maximum efficiency.
- ✓ The same unit may be used as TMBTS or TMB with remote BTS, providing total flexibility of system layout.

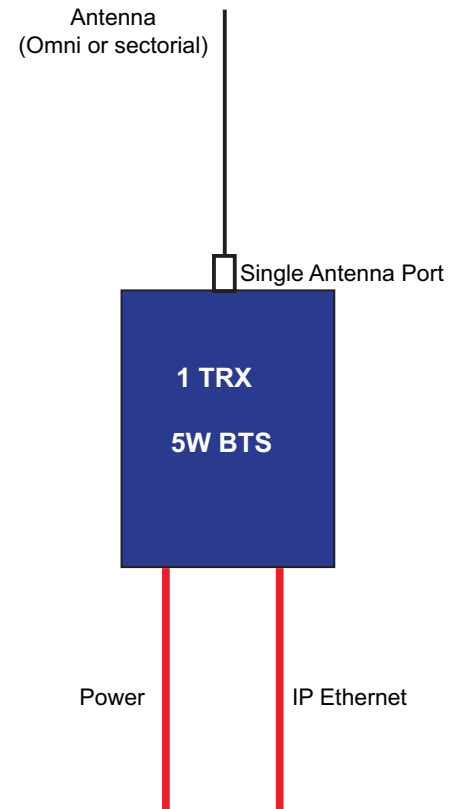


All units are supplied as standard with Ethernet and Power connectors. Optional extras include:

- Wall mount
- Pole mount
- Sunshield

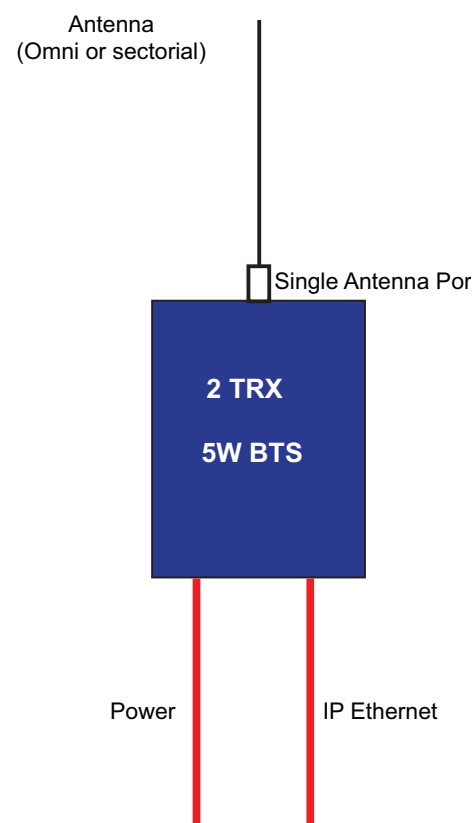
### 1 TRX GSM Tower-Mount 5W BTS

<b>RF Performance</b>	
Output power to antenna port	37dBm
Receiver Sensitivity for voice 2% BER	-110dBm
Frequency	GSM (850, 900, 1800 1900 MHz)
<b>Digital Interfaces</b>	
Speech	GSM FR and AFR, AMR (TCH_AFS and TCH_AHS)
<b>Encryption</b>	
Air interface	A5/1, A5/2
Abis over IP Signaling and management	TLS / AES
Abis over IP Voice	secure RTP / AES
<b>Circuit switched data</b>	
Single slot	BS20 at up to 14.4 kb/s, BS21-26, plus BS61, BS81
<b>GPRS and EDGE support</b>	
GPRS Coding schemes	CS1-4
E-GPRS Modulation and coding schemes	MCS1-9 Multi-slot class 10, Dynamic PDCH, Link adaptation, E-GPRS incremental redundancy & dynamic window size
Network Interface	Auto-select 10/100 Ethernet
<b>Physical</b>	
Dimensions	465mm x 325mm x 215mm
Weight	13kg plus mounting 1.5kg
Mounting	Vertical (connectors at bottom) with wall mount & pole mount
<b>Connectors</b>	
Antenna	Single 7-16 or N Female 50 Ohm. One RF connector is redundant when used as TMBTS
Ethernet	Sealed RJ45 to IP67
AC Power	Sealed 3-pin to IP67
<b>Power</b>	
Input power consumption	72W for full output power
Input supply	110-285VAC 50-60 Hz
<b>Environment</b>	
Enclosure	IP65 Polyester and Aluminium
Temperature	Ambient -30 to +55C not including solar loading
Humidity	5% to 95% non-condensing



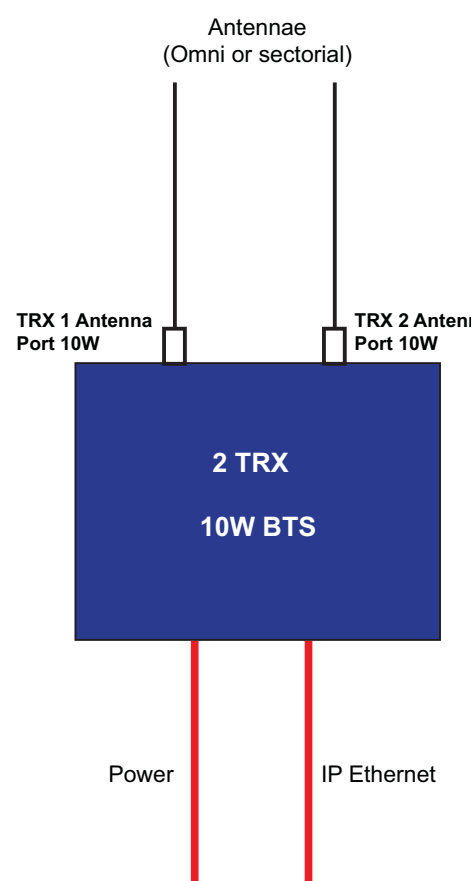
## 2 TRX GSM Tower-Mount 5W BTS Single Antenna Port

RF Performance	
Output power to antenna port	37dBm
Receiver Sensitivity for voice 2% BER	-110dBm
Frequency	GSM (850, 900, 1800 1900 MHz)
Digital Interfaces	
Speech	GSM FR and AFR, AMR (TCH_AFS and TCH_AHS)
Encryption	
Air interface	A5/1, A5/2
Abis over IP Signaling and management	TLS / AES
Abis over IP Voice	secure RTP / AES
Circuit switched data	
Single slot	BS20 at up to 14.4 kb/s, BS21-26, plus BS61, BS81
GPRS and EDGE support	
GPRS Coding schemes	CS1-4
E-GPRS Modulation and coding schemes	MCS1-9 Multi-slot class 10, Dynamic PDCH, Link adaptation, E-GPRS incremental redundancy & dynamic window size
Network Interface	Auto-select 10/100 Ethernet
Physical	
Dimensions	550mm x 400mm x 320mm
Weight	36kg plus mounting 5kg
Mounting	Vertical (connectors at bottom) with wall mount & pole mount
Connectors	
Antenna	Single 7-16 or N Female 50 Ohm. One RF connector is redundant when used as TMBTS
Ethernet	Sealed RJ45 to IP67
AC Power	Sealed 3-pin to IP67
Power	
Input power consumption	180W for full output power
Input supply	110-285VAC 50-60 Hz
Environment	
Enclosure	IP65 Polyester and Aluminium
Temperature	Ambient -30 to +55C not including solar loading
Humidity	5% to 95% non-condensing



## 2 TRX GSM Tower-Mount 10W BTS Two Antenna Ports

RF Performance	
Output power to antenna port	40dBm
Receiver Sensitivity for voice 2% BER	-110dBm
Frequency	GSM (850, 900, 1800 1900 MHz)
Digital Interfaces	
Speech	GSM FR and AFR, AMR (TCH_AFS and TCH_AHS)
Encryption	
Air interface	A5/1, A5/2
Abis over IP Signaling and management	TLS / AES
Abis over IP Voice	secure RTP / AES
Circuit switched data	
Single slot	BS20 at up to 14.4 kb/s, BS21-26, plus BS61, BS81
GPRS and EDGE support	
GPRS Coding schemes	CS1-4
E-GPRS Modulation and coding schemes	MCS1-9 Multi-slot class 10, Dynamic PDCH, Link adaptation, E-GPRS incremental redundancy & dynamic window size
Network Interface	Auto-select 10/100 Ethernet
Physical	
Dimensions	550mm x 400mm x 320mm
Weight	36kg plus mounting 5kg
Mounting	Vertical (connectors at bottom) with wall mount & pole mount
Connectors	
Antenna	2 x 7-16 or N Female 50 Ohm. Two RF connectors are redundant when used as TMBTS
Ethernet	Sealed RJ45 to IP67
AC Power	Sealed 3-pin to IP67
Power	
Input power consumption	180W for full output power
Input supply	110-285VAC 50-60 Hz
Environment	
Enclosure	IP65 Polyester and Aluminium
Temperature	Ambient -30 to +55C not including solar loading
Humidity	5% to 95% non-condensing

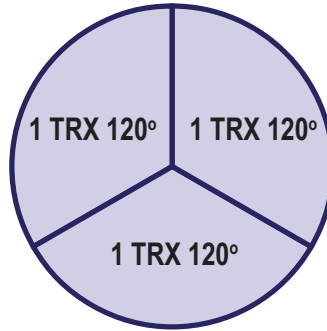


# Antennae Configurations

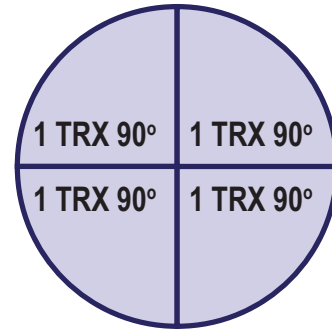
1 TRX 5W



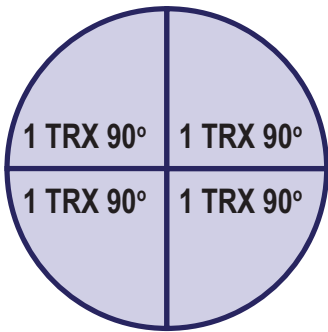
3 TRX 5W



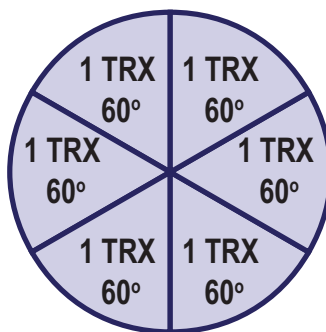
4 TRX 5W



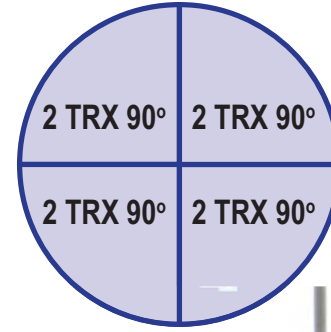
4 TRX 10W



6 TRX 5W



8 TRX 5W



## Applications Supported

- ✓ Mining, oil & gas
- ✓ Islands and atolls
- ✓ Rural villages
- ✓ Emergency deployment
- ✓ Transportation stations and airports
- ✓ Rural locations
- ✓ Black spots and hotspots
- ✓ Hotels and conference centres
- ✓ Marine



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