



GTA & GTS: New Generation BTS – All in One Designed by an Operator for Operators

Our vision is to make mobile communications and internet access available to everyone in the world. The biggest hurdle to achieving this goal is cost: the traditional custom hardware that is used to build mobile networks is far too complicated, power-hungry and expensive for many residents in the more remote parts of the globe to afford. However, by leveraging the techniques of Software Defined Networking and the ubiquity of the Internet, we have created a mobile wireless network at a cost as low as 1/10th the cost of legacy mobile equipment. Our models support 2G/3G/4G/5G NR technology with a variant of “2G+3G” in the same box.



Remote Site in France



Urban Site in France



Recovery Site in California



Isolated Site in Senegal

Features

- For compact network or lab experimentation, a RRH, BBU and EPC components or BTS, BSC, EPC in a single, compact enclosure.
- Available in 2 models: “Entry Level” (GTA) for very low consumption or “High End” (GTS) for high performances
- Low cost: Complete base station is for as low as 1/10th the cost of traditional legacy equipment.
- Average BTS installation time once the location is ready: 2 hours.
- High Performance and Large Coverage.
- Lowest Total Cost of Ownership on the market.
- Compact, sturdy design: Both the GTA and GTS combine off-the-shelf motherboard and radio components within a compact, rugged, water- and dust-resistant enclosure, thus reducing system size, setup time and cost, while increasing mean time between failure (MTBF).
- Low power: Our use of off-the-shelf hardware dramatically reduces cost and power consumption. The GTA unit consumes a maximum of 50W, while our high-performance GTS requires a maximum of 200W, each of which can be provided by a single solar panel or wind turbine where there is no existing power grid.
- Able to support up to 2 TRX on the GTA and up to 8 TRX on the GTS and 114 call legs with AMR-HR.
- Base stations have been commercially proven under very hard weather conditions in the archipelago of Saint-Pierre and Miquelon and in very warm environment in Africa.
- The GTA unit benefits from the R&D investment in the high-end GTS, resulting in an entry-level device that is comparable in performance to much more expensive products.
- Simultaneous 2G and 3G full network in a box (New Feature).
- 2G and 4G units can work together with CSFB protocol.
- A specifically calibrated LNA in the GTS reduces the base transceiver station noise figure (NF) and therefore improves its overall sensitivity; in other words, the mast-based antenna can receive weaker signals, dramatically extending the unit’s reach.
- Power consumption can be adjusted by controlling the power of the amplifier; it can be tuned remotely to match the output of the external power supply (solar panel, wind turbine, etc..).
- Supports 2G, GPRS & EDGE on GTA; 2G, 3G, 4G and 5G NR on GTS
- Available with 10W, 20W & 50W (GTS) and 15W (GTS & GTA) amplifiers.

GTA>S Datasheet

Antenna Connector Type	N-type Tx/Rx 50 ohm
Transmission Mode	1x1 SISO or 2x1 SISO (2G+4G)
Operating Frequency (2G/3G)	GSM850(2G/3G) GSM900 – E-GSM900(2G/3G) GSM1800 – DCS1800(2G) GSM1900 – DCS1900(2G)
Operating Bands (4G)	Band 1, 2, 3, 4, 5, 7, 8, 10, 12, 13, 20, 25, 26, 30, 38, 39, 40, 41, 42, 43, 48 Other FDD and TDD bands between 728 and 3800 Mhz are available upon request
Operating Bands (5G NR)	Regular and custom available
Operating Bandwidths (4G)	1.4, 3, 5, 10, 15 and 20 MHz
Ciphering	A5/1, A5/3
Maximum Data Sessions – 4G	1000
Maximum Throughput – 4G	150 Mb/s
Backhaul Interface	RJ45 for Ethernet Gigabit
Codec	GSM-FR, EFR, AMR-HR, AMR-FR
Voltage	+12V nominal, 24V optional
Operating Temperature	-40 to +55 C (-40 to 131 F)
Protection	Water and Dust Proof - IP65 (IEC529)



Model	RF Maximum Output Power	Power Consumption	2G/3G	4G	5G NR	Maximum Radius Coverage	Transmission Rate Protocol	Maximum Number of TRX (2G)	Dimensions in mm	Weight
GTA-2G (15)	42dBm	35W - 60W	2G only			30km+	GPRS/EDGE	2	380x285x175	11,5 kg
GTS-2G (10, 15, 50)	40dBm to 47dBm	60W-180W	2G only			30km+	GPRS/EDGE	8	380x285x175	11,5 kg
GTS-3G (10)	40dBm	60W-120W	•			10km	UMTS/HSPA+	8	380x285x175	11,5 kg
GTS-4G/5G (10)	40dBm	60W-120W		•	•	10-20km	LTE/LTE-A/5G	8	380x285x175	11,5 kg
GTS-2G+4G	2*40dBm	100W-200W	2G	•	•	10-20km	GPRS/EDGE LTE/LTE-A/5G	8	500x440x187	17,5 kg

About KatelaNetworks

Based in Mauritius, the company offers innovative mobile and core solutions. With a wide range of technologies, from 2G to 5G NR, KatelaNetworks provides cost effective solutions for rural connectivity, extension network, private / offshore networks and customs solutions for tactical network.

General Inquiries

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