TOM100 TETRA OEM MODEM

Delivering TETRA capability for data devices

POWERFUL AND EFFICIENT

- Small size – 47mm x 47mm footprint – hugepossibilities for product formats

- Secure bearer with full TETRA data capability,air interface encryption and authentication

- Support for Short Data Service (SDS) and Packet Data services

- Supports Single-Slot and increased data throughput with Multi-Slot Packet Data

- 1 watt (Class 4) transmit power, exactly the same as a TETRA handportable

FLEXIBLE AND COMPACT

Motorola is a world leader in the development and deployment of TETRA communication solutions, and has developed the TOM100 Data Modem to address the growing demand for data solutionsutilizing TETRA networks.

TOM100 provides a platform for 3rd parties to develop innovative solutions through Motorola's Application Partners Programme. Two-way pagers, customized telemetry devices, notebook PCs, PDAs and data modems are among the many solutions that TOM100 has enabled. TOM100 has also been adopted by users to migrate solutions from existing data bearers such as GSM, including 3G, to realize the benefits of dedicated TETRA networks.
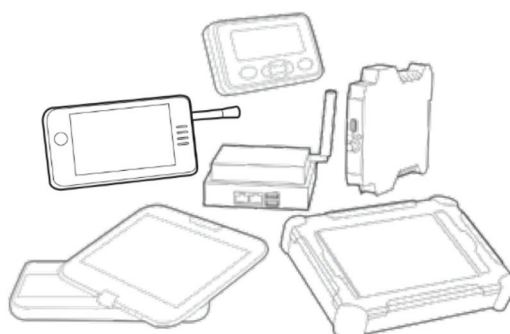
Owing to its size TOM100 is aimed at integration into both new and existing data products, minimising the effort and cost of developing solutions for TETRA networks.

SPECIFICATIONS

GENERAL

Dimensions (HxWxD) mm	47 x 47 x 5.04	+/- 0.3mm (incl connectors)
Weight g	25	
Host Interface Connector	70 pin board-board	Molex 53748-0708
RF Antenna Connector	Coax	Hirose U.FL-R-SMT(10)
Power Supply (V)	3.4-4.2v (4v nominal)	
Current Consumption	Tx 1800 (50 Ohm), 2300mA (maximum if not 50 Ohm)	
(mA, Tx per slot)	Rx 160	
	Idle 28	
	Off 1	

ENVIRONMENTAL

Operating Temperature °C	-20 to +60
Storage Temperature °C	-40 to +85
Dust and Water Ingress	IP54 (cat.2) IEC 529 class
Shock, drop and vibration	ETS 300-019 1-7 class 7.3E (- 30 to +60)
	Between 5-95% relative humidity, no condensation

RF SPECIFICATIONS

Frequency Bands MHz	380 – 400	
	410 – 430	
RF Channel Bandwidth kHz	25	
Tx/Rx Separation MHz	10	
Transmitter RF Power Watt	1 (30 dBm)	On 50 Ohm load, EN303 035-1 Power Class 4
Power Control Range dBm	30 - 15	EN303 035-1
Power Control Step size dB	5	EN303 035-1
Receiver Class	A & B	
Receiver Static Sensitivity dBm	-112 minimum	
Receiver Dynamic Sensitivity dBm	-103 minimum	

REGULATORY COMPLIANCE

Radio (R&TTE Article 3.2)	EN 303 035-1 V1.2.1	
EMC (R&TTE Article 3.1.b)	EN 301 489-01 V1.4.1	
	EN 301 489-18 V1.3.1	
Electrical Safety (R&TTE Article 3.1.a)	EN 60950:2001, EN60215:1994, EN50360:2001	
Environmental	Directive 94/62/EC	Packaging & Packaging Waste
	Directive 2002/96/EC	WEEE
	Directive 2002/95/EC	RoHS

WIRELESS DATA SERVICES

Short Data	TETRA Short Data Services
IP Packet Data	Single Slot & Multi Slot supported

SECURITY SERVICES

Authentication	Infrastructure Initiated & made mutual by Terminal	
Air Interface Encryption	Algorithms:	TEA1, TEA2, TEA3
	Security Class:	Class 1 (Clear)
		Class 2 (SCK)
		Class 3 (DCK / CCK)

*Availability subject to individual country's law and regulations.
Specifications are subject to change without notice and are issued for guidance only.
All specifications listed are typical. Radios meet applicable regulatory requirements.
Conforms to EC directive 89/336/EEC

For more information on the TOM100 please visit us
on the web at: www.motorolasolutions.com/TETRA

MOTOROLA