

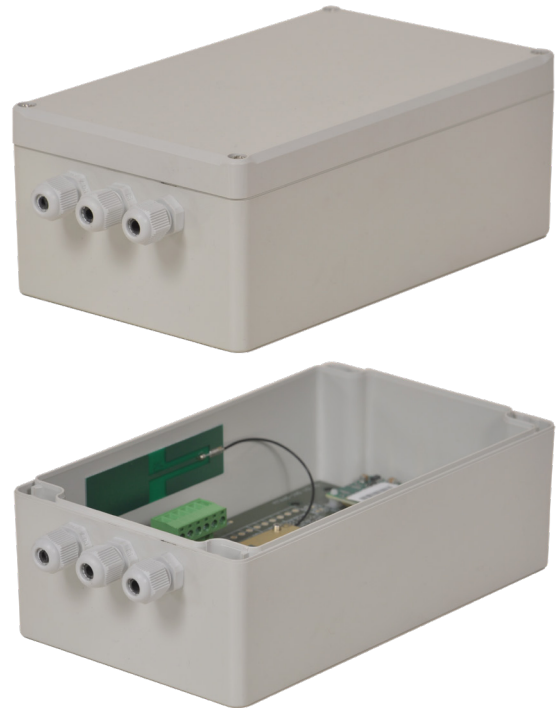
MTX-IND Family

Outdoor industrial applications M2M Modem

The MTX-IND family are UMTS/HSPA modems designed for industrial environments due to its extended operating temperature range and IP65 enclosure. The Quad/Five Band functionality allows it to operate at all relevant GSM frequencies. It has an intrinsic and powerful TCP/IP communication stack with Internet Services.

The MTX-IND contains all the necessary interfaces used in industrial applications. Together with the SIM card reader, it minimizes the need for further hardware components and facilitates integration. WiFi, Bluetooth, ZigBee or ISM RF (Wavenis) optional modules (among others) can be installed internally.

It is also compatible with MTX-Tunnel, an optional firmware that can be executed in our MTX modems to use them as powerful GPRS or 3G gateways.



MAIN FEATURES



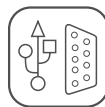
Java



Five band UMTS (WCDMA) HSPA+



Optoisolated I/Os



USB/RS232/485/422



Analog inputs



Relay outputs



Industrial temperature



IP65



Automatic restart








MTX-Tunnel

- ⚡ DC : 24V (9-30) AC: 230V (90-264/120-370)
- 🌡️ Temperature range: -30° to +80°C
- 📏 Dimensions: 200x120x77mm
- 🐦 Weight: <500gr






Preliminary Datasheet. Subject to changes | 2017/09
 MTX © by MATRIX ELECTRONICA S.L.U.
 SUPPORT: iotsupport@mtx2m.com
 SALES: info@mtx2m.com
mtx2m.com









HARDWARE FEATURES

	MTX-IND 3G	MTX-IND 2G
	Five bands UMTS (WCDMA/FDD); bands: 800, 850, 900, 1900 & 2100MHz. Quad band GSM; bands: 850, 900, 1800 & 1900MHz	Quad band GSM: 850, 900, 1800, 1900MHz
	HSDPA cat.8/HSUPA cat.6 data rates: DL max. 7.2 Mbps, UL max. 5.76 Mbps	GPRS class 12 data rates: DL max. 86 kbps, UL max. 86 kbps
	EDGE class 12 data rates: DL max. 237 kbps, UL max. 237 kbps GPRS class 12 data rates: DL max. 85.6 kbps, UL max. 85.6 kbps	GPRS class 12 data rates: DL max. 86 kbps, UL max. 86 kbps
	CSD data transmission up to 9.6 kbps, V.110, non-transparent	
	SMS text messages	SMS text messages








General Features

-  SIM application toolkit, 3GPP release 99
-  Control via AT commands
-  TCP/IP stacks access via AT commands
-  Internet services: TCP, UDP, HTTP, FTP, SMTP, POP3
-  Internal 1650mAh Li-Po battery

Special Features

-  USB interfaces support composite modes and Linux/Mac compliant mode
-  Firmware update via USB/RS232
-  Real Time Clock with alarm functionality
-  Multiplexer according 3GPP TS 27.010
-  RLS monitoring (jamming detection)
-  Informal network scan

Interfaces

-  SMAF antenna connector
-  Optional internal 5 bands 2.5dGi antenna
-  USB 2.0
-  SIM card interface 1.8V and 3V
-  Plug-in 52-way (45 usable) 5mm pitch terminal block: 2x digital I/O, 4x opto I, 2x analog I, 1x SPI bus, 2x RS232/422/485 configurable ports, 4x form C switching contact relays, speaker and microphone signals available (not amplified)
-  Operating status LEDs
-  4x IP68 cable glands

Java Features



Oracle Java ME embedded 3.2



Compliant to CLDC 1.1 HI and IMP-NG standards



Capable of running multiple MIDlets in parallel with inter-MIDlet communication



Java standard APIs: JSR75 (FileConnection), JSR177 (CRYPTO), JSR280 (XML)



Accessible periphery for Java applications: IO pins, I2C, SPI interfaces, ADC/DAC, serial interfaces (API): ASC0, ASC1, USB



Memory space for Java applications: Flash File System: 8MB, RAM: 6MB, Just-in-Time (JIT) Compiler execution optimization

Ordering Information

MTX-IND-3G	199801358
MTX-IND-3G-WC25	199801359
MTX-IND-3G-WC500	199801360
MTX-IND-3G-BT-WT12	199801361
MTX-IND-3G-BLE	199801362
MTX-IND-3G-GPS	199801363
MTX-IND-2G	199801329
MTX-IND-2G-WC25	199801117
MTX-IND-2G-WC500	199801121
MTX-IND-2G-BT-WT12	199801355
MTX-IND-2G-BLE	199801356
MTX-IND-2G-GPS	199801321

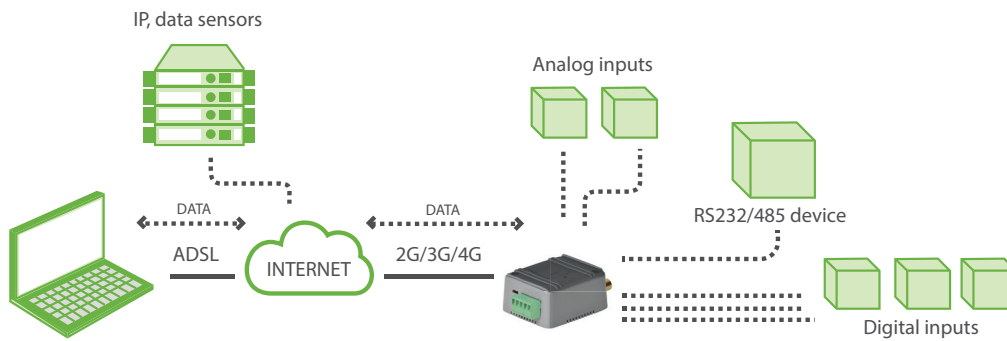
FEATURES BY MODEL

MTX-IND Family

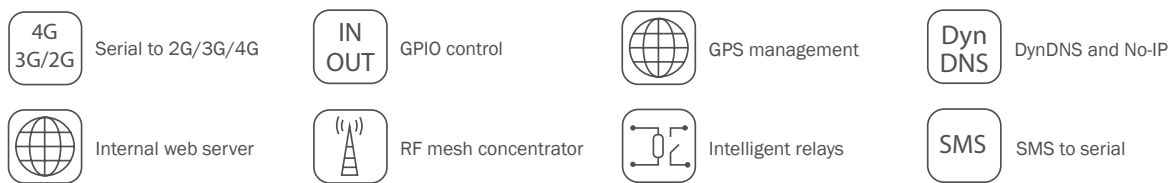
	3G	3G-WC25	3G-WC500	3G-WC25-LC	3G-WC500-LC	3G-BT-WT12	3G-BLE	3G-GPS	2G	2G-WC25	2G-WC500	2G-WC25-LC	2G-WC500-LC	2G-BT-WT12	2G-BLE	2G-GPS
RS232/485/422	x2	x1	x1	x1	x1	x1	x1	x1	x2	x1	x1	x1	x1	x1	x1	x1
USB	X	X	X			X	X	X	X	X	X			X	X	X
I2C/SPI	(*1)	(*1)	(*1)			(*1)	(*1)	(*1)	(*1)	(*1)	(*1)			(*1)	(*1)	(*1)
ADC	x2	x2	x2			x2	x2	x2	x2	x2	x2			x2	x2	x2
DAC	x1	x1	x1			x1	x1	x1	x1	x1	x1			x1	x1	x1
Opto. IO	x6	x6	x6			x6	x6	x6	x6	x6	x6			x6	x6	x6
Relay	x4	x4	x4			x4	x4	x4	x4	x4	x4			x4	x4	x4
Wavecard		X	X	X	X					X	X	X	X			
Bluetooth						X								X		
Bluetooth LE							X								X	
GPS								X								X
Internal RF	X								X							
Li-Po battery	X	X	X			X	X	X	X	X	X			X	X	X

(*1): upon request

TUNNEL SOFTWARE FEATURES



MAIN FEATURES



Connectivity

- 2G/3G/4G serial gateways: TCP client, TCP server, UDP client/server, accept incoming CSD calls, up to 2 simultaneous tunnel
- GPRS connectivity mode: permanent 100% time, under request (SMS, missed call), change on a digital input, analog input out of level, serial data on RS232/RS485 port, scheduled date/hour/time

TCP Services

- Web server and Telnet
- Remote access by web browser
- Shows the status of digital and analog inputs
- Change digital output level and relays
- Execute AT commands remotely

Security

- Authorized phone numbers
- Firewall IP
- SSL connections

SMS Alarm and Control

- Send SMS alarm when the level of digital input change
- SMS can be sent to up 10 remote users
- Execute remote AT commands
- Change the status of digital outputs & relays
- Alias method is allowed

Solutions for Dynamic IP

- GPRS session using a SMS or missed call
- DynDNS and NoIP
- Private DNS

Metering, Modbus, Sensors...

- 868 MHz remote monitoring sensors (Wavenis)
- Modbus RTU devices
- Relays control
- Access to serial devices using GPRS and GSM