

MAINTENANCE WITHOUT TRAVELLING

M2Me solution is dedicated to remotely maintain and control any type of industrial devices (PLC, HMI, Drive, ...).

Using **M2Me** you can quickly from your PC, your tablet or your smartphone be «teleported» in real time and safely onto the remote site you want to monitor or maintain.

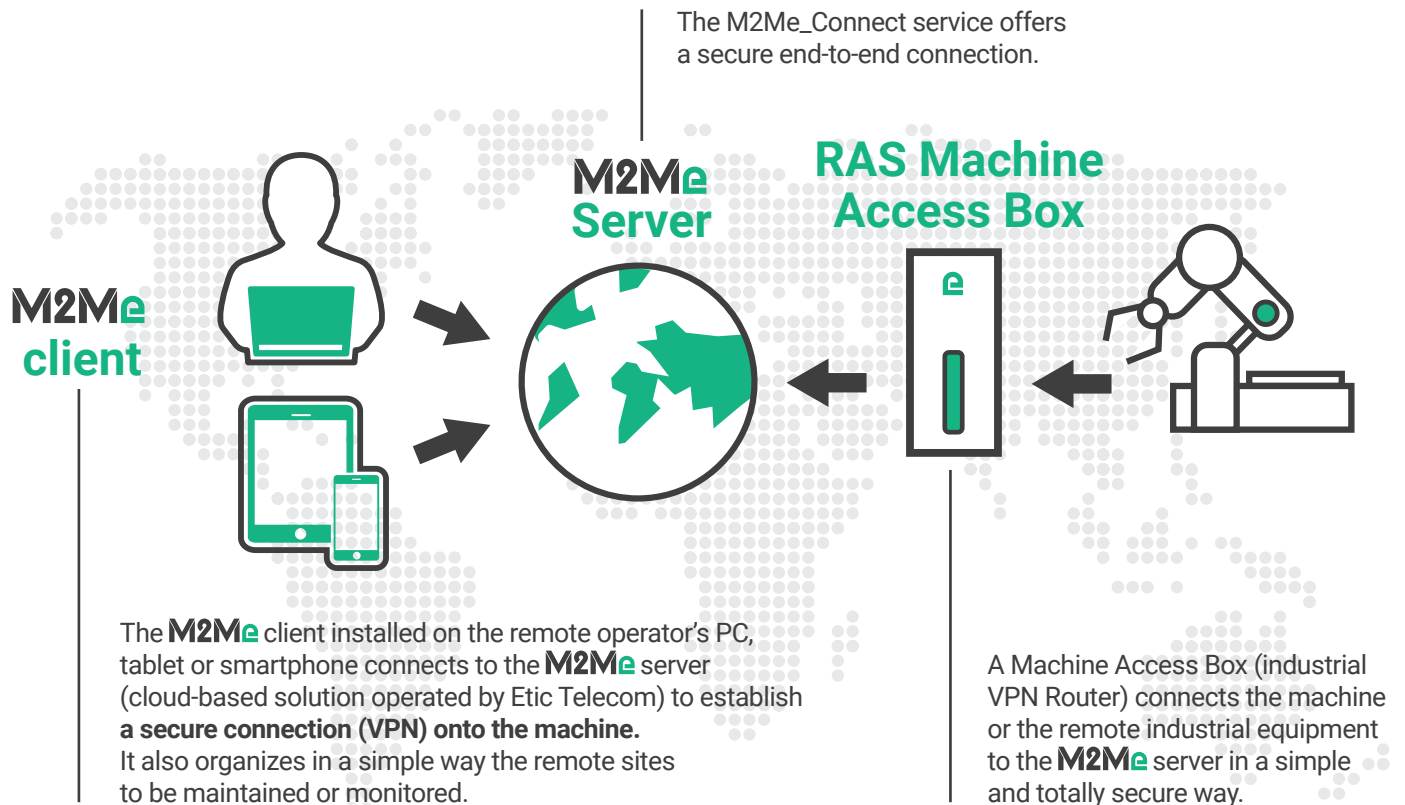
DOC_MPR_RAS_Data sheet_D (latest update 01/15/2021)

RAS Machine Access Box

- **Simple configuration**
Wizard
- **Ultra-secure connection**
- **MultiWAN**
Ethernet, 3G+/4G, Wi-Fi
- **Dashboard display in the Cloud**
- **Datalogger & Alarms**
SMS, E-mail, e*Message, MQTTs, HTTPs, OPCUA
Compatible with MindSphere & EcoStruxure™ Machine Advisor
- **RS232 & RS485**
- **LoRa Gateway**
- **GPS Tracking**
Option
- **5 years warranty**



THE M2Me SOLUTION



ADVANTAGES



Simplicity of implementation

RAS is delivered together with a Wizard.



Plant network integrity

The RAS establishes an outgoing VPN connection that does not require any modification of the existing plant network (firewall, proxy, ...).



A non-intrusive solution

The **M2Me** technology guarantees that the operator can only connect to the machine network and in no case to the other equipment of the industrial site.



A secure solution

M2Me relies on VPN technology and implements authentication to the **M2Me** server by certificates for the remote user and the RAS.



Management of access rights

The RAS allows a personalized management of access rights allowing an operator to connect to all or part of the equipment.

3/4^g

Wireless solution for isolated sites

Some RAS have a 3G + or 4G connection to establish an Internet link through a cellular network.



A sustainable solution

The RAS is an industrial device with 5 years warranty.



Compatible with EticDISPLAY solution

This software option allows the display of industrial data from a client customized dashboard. The dashboard can be easily consulted on the Internet from a PC, a tablet or a smartphone.



RFM

Thanks to Ras Fleet Manager, you simplify the management of your fleet of Machine Access Box by updating automatically the lists of remote maintenance sites and by centralizing in the RFM the management of the access rights for each operator.



Wireless access to industrial equipment

Some machines may be difficult to access in the factory. The optional RAS Wi-Fi hotspot allows you to remotely configure the Machine Access Box from a PC or a tablet.



Wireless Internet access via Wi-Fi

The RAS optionally has a Wi-Fi client that allows access to the Internet via a Wi-Fi access point of the industrial site or by using its smartphone in connection-sharing mode.



Solution compatible with alarms sending and data logger

The Collect & Alert option allows the raising of alarms and its transmission (CSV files). The alerted manager can then visualize Web pages or take the hand (VPN) on the PLC or the HMI of the machine.

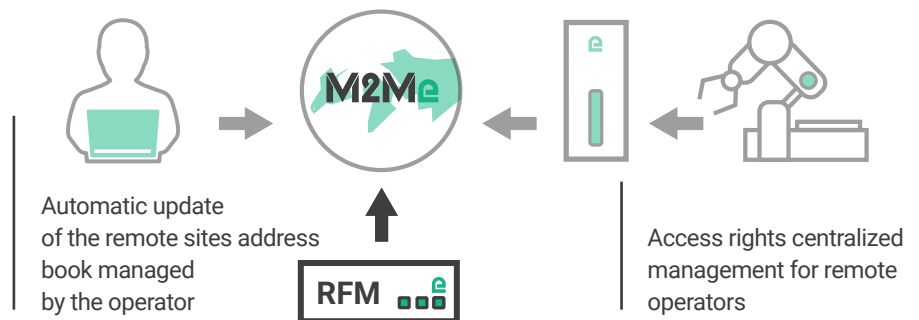
SELECTION GUIDE



RAS-	E-100	EW-100	C-100	E-400	E-220	EW-400	EW-220	EC-400	EC-220	ECW-400	ECW-220
WAN : Ethernet	1	1		1	1	1	1	1	1	1	1
WAN: cellular (-HG: 3G+, -LE: 4G)			1					1	1	1	1
Wi-Fi: 2,4-5 GHz (Access point & client)		1				1	1			1	1
LAN : Ethernet	1	1	1	4	2	4	2	4	2	4	2
RS232 / RS485					✓		✓		✓		✓
GPS Option (with ANT405)				✓	✓	✓	✓	✓	✓	✓	✓
2 power inputs				✓	✓	✓	✓	✓	✓	✓	✓
2 SIM readers								✓	✓	✓	✓
Passerelle LoRa	E-180					EW-480		EC-480			



RAS FLEET MANAGER :
Centralized management
of your RAS fleet



ACCESSORIES

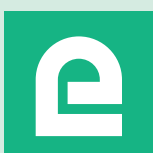


	ANT305	ANT310	ANT320	ANT217	ANT311	ANT219	ANT405
Type	Panel Mount	Roof	Magnet	Panel Mount	Roof	Magnet	Magnet
Network	3G+/4G (compatible LoRa)	3G+/4G (compatible LoRa)	3G+/4G (compatible LoRa)	Wi-Fi (2.4 et 5 GHz)	Wi-Fi (2.4 et 5 GHz)	Wi-Fi (2.4 et 5 GHz)	GPS (1.57 GHz)
Connector	Male SMA	Male SMA	Male SMA	Male RP SMA	Male RP SMA	Male RP SMA	USB
Cable	-	5m	3m	-	2,5m	1m	3m
Dimensions	H = 160mm	H = 82mm Ø = 48mm	H = 72mm Ø = 31mm	H = 90mm	H = 23mm Ø = 80mm	H = 220mm Ø = 60mm	H = 15mm Ø = 38mm

5m coaxial extension: CO-LL6-SF-SM-500 // Kit antenne kit-ANT3xx

TECHNICAL CHARACTERISTICS

GENERAL CHARACTERISTICS		ROUTING / IP@ / MANAGEMENT	
Dimensions	<ul style="list-style-type: none"> RAS-X-100: 120x37x88mm (h,l,d) Other RAS: 135x47x115mm (h,l,d) 	Routing IP	<ul style="list-style-type: none"> Routing tables RIP or OSPF Address translation (DNAT, SNAT and NAT 1:1)
Weight	Between 500g and 650g depending on model (without packaging)	Assigning IP@	<ul style="list-style-type: none"> WAN interface: DHCP client or fixed IP LAN interface: DHCP server
Power	<ul style="list-style-type: none"> RAS-X-100: Nominal 12 - 24 VDC (min 10 - max 30) RAS-E: Nominal 12 - 48 VDC (min 10 - max 60) Phoenix connector 2 points 	DNS	<ul style="list-style-type: none"> WAN interface: compatible with DYNDNS, No-IP or ETIC DNS LAN interface: relay & DNS server
Consumption	<ul style="list-style-type: none"> RAS-E or RAS-M: 2W RAS-EC et RAS-EW: 5W, RAS-ECW: 8W 	Management	MIB 2 and Traps SNMP
Temperature	<ul style="list-style-type: none"> Storage: -40 °C - +85 °C Operation: -20 °C - +70 °C Humidity 5 to 95% 	Configuration	Web Server
EMC	Immunity (EN 61000-6-2) <ul style="list-style-type: none"> EN61000-4-2: Electrostatic discharge (ESD) EN61000-4-3: RF radiated EN61000-4-4: EFT/Burst EN61000-4-5: Surge EN61000-4-6: RF Conducted EN61000-4-8: Magnetic field Emission (EN 61000-6-4) <ul style="list-style-type: none"> EN 55022: Radiated and Conducted emission FCC: RAS-X-100: FCC PART 15 	SECURITY	
Electrical Safety	IEC-EN 62368-1 RAS-X-100: CB FR-704843 (for US market)	VPN tunnel	<ul style="list-style-type: none"> OpenVPN (TLS/SSL), IPSEC, L2TP/IPSEC, PPTP Shared Key or X.509 Certificate Encryption 3DES & AES 128-192-256 Authentication: MD5 & SHA-1 Up to 10 VPN tunnels (mix OpenVPN and IPSEC allowed)
Hazardous substances	<ul style="list-style-type: none"> Directive 2002/95/CE (RoHS) REACH 	Firewall	<ul style="list-style-type: none"> Stateful packet inspection (SPI: 50 rules) Filtering IP@ and Ports
Casing	Metallic IP20 (RAS-E, RAS-M) or IP31 (RAS-X-100) with DINRail mounting	Internal report	<ul style="list-style-type: none"> Timestamped Events: connection, restart, alarms
WAN NETWORK		Alarms	<ul style="list-style-type: none"> Digital input: email, SMS, SNMP trap Digital output: Power supply failure, user connection, ...
Ethernet	<ul style="list-style-type: none"> RJ45 Auto: 10/100 full & half MDI/MDI-X 	Redondancy	VRRP protocol RFC 3768
4G/3G+	<ul style="list-style-type: none"> 4G LTE Europe, China 3G+HSPA "world wide" Max. data rate 4G: UL @ 50 Mbps and DL @ 100Mbps Max. data rate 3G+: UL @ 5,7 Mbps and DL @ 21 Mbps Max. data rate 2G: UL @ 237 Kbps and DL @ 237 Kbps Antenna connector Female SMA Certified antennas: see Accessories page 3 	M2ME SOLUTION	
Wi-Fi	<ul style="list-style-type: none"> Client 2.4 and 5 GHz 802.11 a/b/g/n Antenna connector Female RP-SMA Certified antennas: see Accessories page 3 	Users	Up to 100 remote users
LAN NETWORK		Alarms	RAS Compatible with «Collect & Alert» solution
Ethernet	<ul style="list-style-type: none"> RJ45, 1 up to 4 ports depending on model Auto: 10/100 full & half MDI/MDI-X 	Security	<ul style="list-style-type: none"> Access to the RAS by Login & Password & Certificate (optionnal) and optional certificate Single RAS product key required for the remote user Customizable LAN machine network access rights
RS232/RS485	<ul style="list-style-type: none"> 9600 up to 115200bps 10 or 11 bits RAW TCP server, TCP client & UDP gateway ModBus master or slave gateway Unitelway gateway for master PLC RS232: RJ45 RS485: 2 points phoenix connector 	Redondancy	Multi WAN for backup on specific models
Wi-Fi	Access point 2.4 and 5 GHz	Communication	<ul style="list-style-type: none"> Secured Connection onto the M2Me_Connect service OpenVPN
		Management	<ul style="list-style-type: none"> Saving a configuration Recording on USB flash drive, SD card or internal memory Reset product to return to factory configuration Option managed from the client area of the WEB site
		M2Me Client	<ul style="list-style-type: none"> PC: All OS versions up to W10 Smartphone and tablet PC: Android and iOS
		M2Me_Connect	Connection to the remote maintenance service
		RAS Manager	RAS fleet centralised management (optional)



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INDUSTRIAL NETWORKING