

## Technical data MTL industrial network solutions

June 2023  
EPS 9479-ET(G)-CSL Rev 4

# 9479-ET(G)-CSL

## CSL Intrinsically Safe Gigabit Ethernet WLAN AP / Bridge

- **Intrinsically Safe ATEX / UKEX / IECEx / North America (MET<sub>C/US</sub>) approvals**
- **Dual Band 2.4GHz / 5GHz WLAN Support**
- **Access Point (AP) Mode**
- **or Client/Bridge Mode**
- **Dual Port Switch 10/100/1000Mbps LAN (daisy-chain capability)**
- **Compact dimensions (W: 42 x H: 160 x D: 140 mm)**
- **Ex ia IIB T4 Ga, Ex ia [ia Da] IIIC T135° Db (non-mining) Ex ia I Ma (M1 mining).**
- **Ta = -40°C to +70°C**
- **Zone 1 / Zone 21 mounting (Zone 0 / Zone 20 with a suitable Ex ia Power Supply)**



**The 9479-ET-CSL is an Intrinsically Safe (IS) WLAN AP/Bridge Module** suitable for Zone 1 / Zone 21 mounting, **(Zone 0 / Zone 20 with a suitable Ex ia Power Supply).**

It may be configured as either an AP or Client/Bridge. Also supporting either 2.4GHz or 5GHz operation further extends its range of applications.

There are 2x RJ45 (LAN) ports that support 10/100/1000 IS Ethernet connections – these can allow 'daisy-chaining' of units together.

Power (12V DC) is supplied to the module either locally or using **Power over Ethernet (PoEx)** from the LAN port- This requires the PoEx output to be wired to the Supply Input terminals by the user.

Note: PoEx not available on Gigabit versions

The compact and cost effective design makes it the ideal choice for many applications:

|                    |  |
|--------------------|--|
| <b>Petrochem -</b> | Process Monitoring, Galvanic Isolation etc.              |
| <b>Mining -</b>    | Underground Communication Links, Machine Monitoring etc. |

Electrical connections are via cage-clamp and/or screw type plug/socket terminals along with RJ45 type connectors for the Ethernet LAN ports. The antenna connections are SMA type

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### SPECIFICATION

#### Power supplies

12VDC IS Power Supply Input or  
PoEx™ (Power over IS Ethernet)  
Typically 12V @ 300mA (Inrush < 200mA)  
Ui = 15.4V  
9492-PS-PLUS recommended

#### Ethernet

Intrinsically Safe 10/100/1000Base-T

#### Connector

RJ45 (x2)

#### Cable Length

Up to 100m Cat5e

#### PoEx

Powered Device

### ANTENNA CONNECTIONS

#### Connector (Top Port MAIN, Bottom Port AUX)

SMA (MAIN)  
SMA (AUX)

### SAFETY

#### Location of Unit

Zone 1, IIBT4 hazardous area (9479-ETG)  
Zone 1, IICT4 hazardous area (9479-ET)

#### Certification Code

Ex ia IIBT4 Ga (9479-ETG)  
Ex ia IICT4 Ga (9479-ET)  
Ex ia [ia Da] IICT135°C Db  
Ex ia I Ma (M1 mining)  
Ta = -40°C to +70°C

#### Certificate numbers

CML 19ATEX2414X  
IECEX CML 19.0150X  
IECEX ExTC 20.0019X (QLD)  
CML 21UKEX21072X

See certificates for further information

### ENVIRONMENTAL

#### Operating Temperature

-40°C...+70°C (full WLAN specification -20 to +60°C)

#### Storage Temperature

-40°C...+70°C

#### Humidity

0...95% RH, non-condensing

#### Ingress Protection

Select enclosure to suit application,  
see certificates for information

### MECHANICAL

|          |          |
|----------|----------|
| Width    | 42mm     |
| Height   | 160mm    |
| Depth    | 140mm    |
| Weight   | 1500g    |
| Mounting | Din Rail |

### LED INDICATORS

|                   | OFF                        | FLASH                  | ON                      |
|-------------------|----------------------------|------------------------|-------------------------|
| PWR (green)       | Power Fail                 | N/A                    | Power OK                |
| WDG (green)       | Fault                      | Green- Healthy (10Hz)  | Fault                   |
| STAT (green)      | Initialising or Fault      | N/A                    | Healthy                 |
| RJ45 ACT (yellow) | Ethernet link disconnected | Ethernet link activity | Ethernet link connected |
| RJ45 1000 (green) | 10/100Mbps                 | N/A                    | 1000Mbps                |
| WLAN ACT (blue)   | No Link                    | Data                   | Linked                  |

### WLAN

#### TX Output – 802.11n

2.4GHz: 18 to 20.5 dBm  
5GHz: 15 to 18 dBm  
(per antenna output in 2T/2R mode)

#### RX Sensitivity – 802.11n

2.4GHz: -92 to -73 dBm  
5GHz: -96 to -72 dBm

#### Data Rates

802.11n : up to 300Mbps (2T/2R)  
802.11a/h : 6 to 54Mbps  
802.11b : 1 to 11Mbps  
802.11g : 1 to 54Mbps

#### Security – AP Mode

WEP, WPA-PSK, WPA2-PSK, WPA/WPA2,  
SSID visibility status

#### Security – Client/Bridge Mode

WEP, WPA-PSK, WPA2-PSK, WPA/WPA2,  
AES/TKIP/WEP by hardware encryption

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## DATA & POWER TERMINALS

### Power & External LEDs (CON1)

| Pin | Function        | Pin | Function      |
|-----|-----------------|-----|---------------|
| 1   | Power In +12V#  | 2   | Power In 0V#  |
| 3   | LAN1 PoEx +12V# | 4   | LAN1 PoEx 0V# |
| 5   | LAN2 PoEx +12V# | 6   | LAN2 PoEx 0V# |
| 7   |                 | 8   |               |
| 9   |                 | 10  |               |
| 11  | 0V              | 12  | 0V            |
| 13  | LAN1 LED        | 14  | LAN2 LED      |
| 15  | WLAN LED        | 16  |               |
| 17  |                 | 18  |               |

-#Connect LAN1 OR LAN2 PoEx terminals to Power In terminals to use this function

- LEDS wire between LED terminal and 0V (no resistor required)

### LAN (RJ45)

#### 10/100/1000 BASE-T Ethernet

| Pin | 10/100 Function | Gigabit Function |
|-----|-----------------|------------------|
| 1   | Tx +            | BI_DA+           |
| 2   | Tx-             | BI_DA-           |
| 3   | Rx +            | BI_DB+           |
| 4   | PoEx +12V*      | BI_DC+           |
| 5   | PoEx +12V*      | BI_DC-           |
| 6   | Rx-             | BI_DB-           |
| 7   | PoEx 0V*        | BI_DD+           |
| 8   | PoEx 0V*        | BI_DD-           |

\*PoEx not available on Gigabit ports

## ORDERING INFORMATION

| Part Number         | Description                     | Comments                          |
|---------------------|---------------------------------|-----------------------------------|
| <b>9479-ETG-CSL</b> | <b>Gigabit WLAN AP / Bridge</b> | <b>Standard</b>                   |
| 9479-ET-CSL         | WLAN AP / Bridge (10/100 PoEx)  | Special Order<br>(Subject to MOQ) |

Note: 2x Antenna required (not included) these need to be ordered separately

## ACCESSORIES

| Part Number                   | Description   |
|-------------------------------|---|
| <b>ANTSMA94</b>               | <b>Antenna SMA Plug, length 150mm Gain, 3dBi</b>                          |
| <b>ANT94</b>                  | <b>Antenna TNC Plug, length 150mm Gain, 3dBi</b>                          |
| <b>ANT94RA</b>                | <b>Stubby Antenna TNC 90° Plug, length 80mm, Gain 2dBi</b>                |
| <b>CSL-RG316-SMA-1000</b>     | <b>SMA Bulkhead Socket ⇔ SMA Plug, length 1000mm RG316 Cable Assembly</b> |
| <b>CSL-RG316-TNC-SMA-1000</b> | <b>TNC Bulkhead Socket ⇔ SMA Plug, length 1000mm RG316 Cable Assembly</b> |



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