9479-ET(G)-CSL

CSL Intrinsically Safe Gigabit Ethernet WLAN AP / Bridge

- **Intrinsically Safe ATEX / UKEX / IECEx / North America ($MET_{c/US}$) approvals**
- **Dual Band 2.4GHz / 5GHz WLAN Support**
- **Access Point (AP) Mode**
- **or Client/Bridge Mode**
- **Dual Port Switch 10/100/1000Mbs 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:

Petrochem -	Process Monitoring, Galvanic Isolation etc.
Mining -	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] IIICT135°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

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
9479-ETG-CSL	**Gigabit WLAN AP / Bridge**	**Standard**
9479-ET-CSL	WLAN AP / Bridge (10/100 PoEx)	Special Order (Subject to MOQ)

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

ACCESSORIES

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

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