

Supplier's Declaration of Conformity (SDoC)

ส่วนมาตรฐานโทรคมนาคม	วันที่ 13 ส.ค. 2562
เวลา 11.40	
เลขที่ SN-2750	

The Office of the National Telecommunications Commission

Supplier's Declaration of Conformity

1. Supplier Information

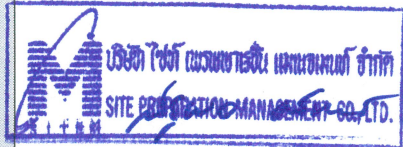
1.1 Company name Site Preparation Management CO.,LTD
1.2 Address Site Preparation Management CO.,LTD 12/8-11, 4th floor AV Building, Thetsabansongkhro Road, Ladyao, Chatujak, Bangkok 10900, Thailand

2. Telecommunication equipment information

2.1 Equipment type Environmental moniter	
2.2 Brand Packetpower	2.3 Model EMB1
2.4 Conforming standards declared กสทช.มท. 1033-2560	

I hereby certify that this telecommunication equipment conforms with the technical standards or requirements enforced by the National Telecommunications Commission.

3. Supporting documents

Test reports Test Report No. : G1404(E)/62 Test Report No. : K0390(E)/62	
Signed	
Position	Chief executive officer
Date	08-08-19

The supplier shall submit a completely filled Supplier's Declaration of Conformity to the Office of the National Telecommunications Commission, and keep a copy along with the support documents, to be inspected upon request by the Office of the NTC.




สถาบันไฟฟ้าและอิเล็กทรอนิกส์
ELECTRICAL AND ELECTRONICS INSTITUTE

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TEST REPORT

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Report No.	G1404(E)/62	
Operation No.	6206BG1497	
Name and address of customer	Site Preparation Management co.,Ltd 12/8-11, 4th floor AV Building, Thetsabansongkhro Road, Chatujak, Bangkok 10900, Thailand	
Sample	Sample(s) was/were submitted and identified by/on behalf as following: Environment monitor Model : EMB1 1 Set (1 unit)	
Sample No.	BG1497	
Sample characteristic and	Normal	
Sample received date	24 June 2019	
Test date	3 July 2019-15July 2019	
Issue date	26 July 2019	
Test standard	FCC Part 15 Subpart C 15.247 and 15.249 Equivalent Isotopically Radiated Power ETSI EN300 220-1 Clause 5.4 TX Duty Cycle FCC Part 15 Subpart C 15.209 Radiated Limit FCC 47 CFR Part 1 Section 1.1310 Radiofrequency radiation exposure limits	
Test report	Details of the test report as shown on the following pages	
Summary of testing		
The test results comply with standards		
Tested by (name + signature)	Mr.Pudit Palakawong Na Ayutthaya	 สถาบันไฟฟ้าและอิเล็กทรอนิกส์ ELECTRICAL AND ELECTRONICS INSTITUTE
Approved by (name + signature)	Mr. Sasina Prakongkue	
Certified by (name, function + signature)	Mr.Thossaphorn Udomsinsirikul Division manager, Operation division 3	

Sample photo



Possible test case verdicts :

- P : test object does meet the requirement
- F : test object does not meet the requirement
- N : test case does not apply to the test object

3. Product Description

Product Name	Environment Monitor
Brand Name	Packet power
Model No	EMB1
Serial Number	--
Software	--
Antenna Gain	0.5dBi
Additional Information	The EUT is an environment meter which incorporates a 902-928 MHz radio with an integral antenna

5. Test Result

5.1. Equivalent Isotropically Radiated Power

The e.i.r.p. shall not exceed 36dBm (4W)

Limit

The limits given in FCC sections 15.247 and 15.249 for the 902–928 MHz band are summarized in table

Table Transmit Power Limits for the 902–928 MHz Band

Transmission Type	Fundamental		Harmonics	
	E at 3m	EIRP	E at 3m	EIRP
Frequency hopping		≥50 channels: +36 dBm	20 dB below the peak in-band emission in any 100-kHz bandwidth	
Digitally spread		+36dBm		
Other	50mV/m	-1.23 dBm	500 μV/m	-41.23

Test method:	Radiated				
Distance:	<input checked="" type="checkbox"/> 3m	<input type="checkbox"/> 10m			
Frequency Range	<input checked="" type="checkbox"/> 920-925MHz	<input type="checkbox"/> 2400-2483MHz	<input type="checkbox"/> 5725-5850 MHz		
Measured field		EIRP		Limit	Verdict
dBμV/m	V/m	W	dBm	W (dBm)	Pass
109.0	0.281	0.023	13.61	4.0 (36)	

Note: The Equivalent Isotropically Radiated Power was calculated from equation

Field Strength Approach (linear terms):

$$EIRP = P \times G = (E \times d)^2 / 30, \text{ where}$$

P is the power in watts;

E is the measured field strength in V/m;

d is the measurement distance, d = 3m;

G is the numerical antenna gain of the transmitter G = 0.5dBi, Or G=1.122 numerical

(Declare by manufacturer)

$$\text{Numeric gain (G)} = 10^{(\text{antenna gain}/10)}$$

Measurement Result

Note: Refer to next page spectrum analyzer data chart and tabular data sheets.

WIRELESS ENVIRONMENTAL MONITOR: E306-H000 (EMB1)

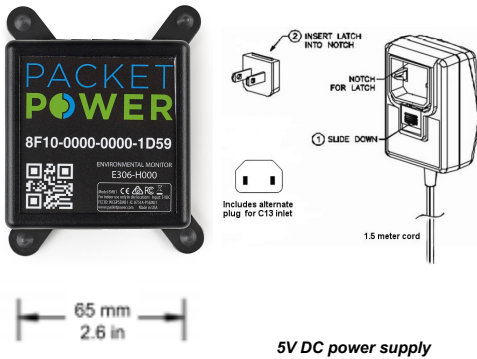


Monitoring points: 1 to 6
 Relative humidity: Included
 Differential pressure: Not included
 Power source: AC

Wireless Environmental Monitor with 1-6 temperature, dry contact, and/or leak detection points via external probes. Relative humidity sensor included.

Radio zone will be set to the region where the monitor will be used. Packet Power Ethernet Gateway required to receive data from the environmental monitor.

The environmental monitor attaches to a mounting bracket (included) using a 35mm DIN rail clip. Rubber bumpers on the back of the bracket can be removed to expose 0.2 inch holes that can be used for permanent mounting with mechanical fasteners.



5V DC power supply

SPECIFICATIONS

Temperature Readings	±0.3°C at 0.1°C resolution with readings in °C or °F Temperature probe range: -30° to 70°C (-22° to 158°F)
Relative Humidity Readings	0 to 100% RH at ±2% RH at 0.1% resolution
Dry Contact Readings	Contact Packet Power for specifics
Leak Detection Readings	Battery-powered sensor adjusts to detect water at levels from 1/32" up to 17/32"
Time Constant	30 seconds in moving air

# Measurement Points / Probes	1 to 6
Power Supply	Input: 100 to 240V AC, 50 to 60 Hz; Output: 5V DC Power over Ethernet available (requires a PoE splitter)
Power Cord and Plug Types	1.5 m cord length; Plug types: C18, NEMA 5-15, CEE-7 Schuko, AS/NZS 3112 2000, BS 1363A, BS 546A, China CPCS-CCC
Monitor Dimensions	65 mm x 65 mm x 28 mm (2.6 in x 2.6 in x 1.1 in)
Mounting Bracket Dimensions	W: 63 mm (2.5 in) center hole to center hole L: 82 mm (3.5 in) center hole to center hole
Monitor Weight	70 g (2.5 oz)
Operating Temperature	Monitor: 0° to 50°C (32° to 122°F) Temperature probe: -30° to 70°C (-22° to 158°F)
Operating Humidity	10% to 90% non-condensing
Water and Dust Resistance	Indoor use
Power Usage	0.5W
Wireless Network Protocol	Frequency hopping self-configuring load-balancing mesh; Operating frequency 920.2 to 924.8 MHz when configured to the A1 radio region (e.i.r.p. <50mW)
Wired Network Protocols	HTTPS to Packet Power EMX running locally or as cloud service; SNMP V1/V2c/V3; Modbus TCP/IP; EtherNet/IP; MTConnect
Firmware Updates	Wireless
Typical Transmission Range	10 to 30 meters indoors between any two devices in mesh network
Antenna	Fully enclosed, fixed configuration
System Status	Local LCD display
Encryption	Optional 128-bit
Made in USA	Yes
Product Warranty	1 year
Radio Certifications	FCC, Industry Canada and CE / IEC