ELECTRONICS TEST AND DEVELOPMENT CENTRE
(STQC Directorate, Ministry of Communications & Information Technology)
100 ft Road, Peenya Industrial Estate, Bengaluru-560 058
(Phone: (080) 2839 4252/4647/4766/5992; Telefax: +91-080- 23722314)
E-mail: etdcbg@stqc.gov.in

T-0044

Report No.: TR/EMC/64135-2

TEST REPORT

1. Scope

1.	Service request number:	64135	Date:24/04/2017	Job No.: 02
2.	Test requested by (Name & Address of the Organization)	M/s. CEM Solutions Pvt. Ltd. #143/A1, Bommasandra Industrial Area, Hebagodi Village, Bangalore-560099.		
3.	Description/Unambiguous identification of the item:			
	a) Nomenclature	STM/BLOX eSBC		
	b) Manufactured by	ALLO.COM		
	c) Model / type no.	ALLO-STM/eSBC		
	d) No. of items submitted	01	Sampling :Not applicable	
	e) Serial no.	SP23001910816		
4.	Date of submission of test samples	24/04/2017		
5.	Condition of test samples on receipt	Good		
6.	Test carried out at	In-house/~~On-site~~		
7.	Date of start of tests	24/04/2017		
8.	Date of completion of tests	25/04/2017		
9.	Date of issue of test report	28/04/2017		
10.	Applicable standard/test specification	FCC PART 15:2007 Class B.		
11.	Test category	Performance Test		
12.	Laboratory Environment condition	Temp: 15 to 35°C RH: 45 to 70%		

2. Major equipment used

SN	Nomenclature	Make	Model	Cal. Due
1.	EMI test receiver	R&S	ESCI7	19/10/2017
2.	Bi-Log Antenna	Electro metrics	EM-6917B-1	04/06/2017
3.	EMI test receiver	R&S	ESCI	30/12/2017
4.	V-Network	R&S	ESH3Z5	02/05/2017

Date of Release: 15.06.16

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Test Parameter : 1) Conducted Emission measurement on power line
2) Radiated Emission measurement @ 3mts. distance
Test Specification : FCC Part 15: 2007, Class B
Detector Used : Quasi Peak (QP) / Average (Avg)
Detector Bandwidth

Frequency (MHz)	Detector Bandwidth (kHz)
0.15 - 30	9
30 - 1000	120

Limits:

Class B				
Conducted Emission measurement on power line			Radiated Emission measurement @ 3mts. distance	
Freq. Range (MHz)	QP (dBµV)	AVG (dBµV)	Freq. Range (MHz)	QP (dBµV/m)
0.15 - 0.5	66 - 56	56 - 46	30-88	40
0.5 - 5	56	46	88-216	43.5
5 - 30	60	50	216-960	46
			960-1000	54

EUT Configuration: The EUT is a STM/BLOX eSBC, powered by 5V DC through 230V AC to 5V DC adaptor (Make: XING YUAN, Model No: XY24S-0503000Q-U, Serial No: 1620).

Remark: The Image of EUT and test setup for Radiated Emission measurement @3 mts. distance are shown in Annexure 'A' and 'B' respectively. The graphs for Conducted Emission measurement on power line and Radiated Emission measurement @3 mts. distance tests are shown in Annexure 'C' and 'D' respectively.

Summary of test results:

Conducted Emission measurement on power line: Meets the Class B Limits of FCC Part 15: 2007 Few Significant emission are reported in page no. 03
Radiated Emission measurement @3 mts. distance: Meets the Class B Limits of FCC Part 15: 2007 Few Significant emission are reported in page no. 04

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Results: (1) Conducted Emission measurement on power line.

Frequency (MHz)	Qp Reading (dBµV)	Qp Limit (dBµV)	Avg Reading (dBµV)	Avg Limit (dBµV)
On Line				
0.154	43.21	66.00	31.79	59.00
0.194	37.52	64.86	26.02	57.52
0.226	36.65	63.71	26.04	56.04
0.246	35.25	63.14	24.98	55.30
0.422	36.49	58.29	29.70	49.01
1.226	29.74	56.00	20.68	46.00
On Neutral				
0.154	44.45	66.00	33.03	59.00
0.178	41.33	65.14	29.87	57.89
0.190	39.13	64.86	28.08	57.52
0.202	37.34	64.57	26.50	57.15
0.214	36.45	64.29	27.04	56.78
1.242	30.76	56.00	21.26	46.00

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Results: (2) Radiated Emission measurement @ 3mts. distance

Frequency (MHz)	Quasi-peak emission level* (dBµV/m)	Angle (deg)	Polarisation (H/V)**	Quasi-peak Limit (dBµV/m)
30.20	27.32	180	H	40
250.00	23.91	180	H	46
422.64	24.50	0	H	46
500.00	31.79	270	V	46
676.16	30.30	180	H	46
754.84	31.84	0	H	46

*-The antenna height adjusted between 1 m and 4 m above the ground plane for maximum emission level at each test frequency.

** (H/V):H-Horizontal polarization, V-Vertical polarization

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Tested By
(Neeraj Gupta)
(SA 'A')

Approved By
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Electronics Test & Development Centre
Ministry of Comm. & IT., STQC Directorate
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Issued By
CO-ORDINATOR
TESTING SERVICES,
E.T.D.C., BENGALURU.

GOVERNMENT OF INDIA ELECTRONICS TEST & DEVELOPMENT CENTRE BENGALURU-560 058 DEPTT. OF ELECTRONICS AND INFORMATION TECHNOLOGY

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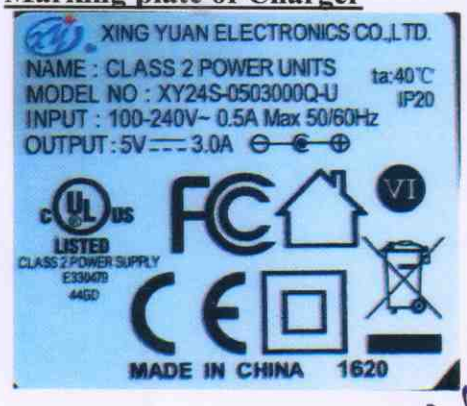
Image of EUT

Marking plate of EUT

Marking plate of Charger



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