2.6 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Test Summary	
Test Lab: MPB Technologies Inc. Ottawa Test Personnel: D. Zanette Test Date: February 4, 2000	Product: BST300 Cellular Booster

Test Description	
Objectives/Criteria	Specifications
For devices to be operated more then 20 cm from the users body, the equipment shall not exceed that listed in the table.	Power Density Requirements,FCC Part 1.1310 Frequency mW/cm² 0.3 – 1.34 (100) 1.24 – 30 (180/f²) 30-300 0.2 **300-1500 f/1500** 1500-10000 1

Test Result: **PASS**

Comments:

Limit distance is at 8.8 inches (20 cm) from antenna.
Statement to be incorporated shall read as follows:

Both magnetic and glass mount antenna were evaluated. The glass mount antenna being worst case must be mounted in a location that will provide a minimum of 12 inches (30 cm) separation between it and vehicle occupants in order to meet the MPE (Maximum Permissible Exposure) limit and requirements in accordance with FCC CFR 47 Part 1.1301.

The maximum permissible power output limit is at 8 inches (20 cm) from the antenna, this is equivalent to 0.549 mW/cm^2. Max Output measured at 824 MHz was 0.194 mW/cm^2 at 12 inches (30 cm) **.** Refer to Test Report Data sheets for more detail.

All measurements were performed while the EUT was transmitting a CW signal which is deemed to be worst case. No duty cycle correction factors for TDMA (DWX) were applied.

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TEST REPORT DATA

Customer No: 1129	MPBT No.: M34R2197	Test Date: February 4, 2000
TEST COMP./PART: SAMPLE 642	TEST DESCRIPTION: MAXIMUM PERMISSIBLE EXPOSURE	TEST CRITERIA: GENERAL EXPOSURE LIMITS
MIL-SPECS./STDS.:	FCC PART 1 SUBPART I, SECTION 1.1310	QUAL ✓ ENG.:
FACILITY: **MPB TECHNOLOGIES INC.**	TEST ENGINEER: D. ZANETTE	INTERNAL:
QA PERSONNEL:	OTHER: TEMP.: 15 C HUMIDITY: 20%	

TEST PROCEDURES	DETAILS/DEVIATIONS	PASS	FAIL	INIT
FCC Part 1 Subpart I	Frequency mW/cm²			
Section 1.1310				
	0.3 – 1.34 (100)			
	1.24 – 30 (180/f²)			
	30-300 0.2			
	300-1500 f/1500 = 0.550 mW/cm^2 or 27.4dBm/ cm^2	✓		D.Z.
	1500-10000 1			
	Note: Points and respective readings shown on next			
	page. Averaging time is 30 minutes.			
	f = 824 (Lowest Tx Frequency)			
	Limit = 27.4			
	NOTE: Glass Mount Cable loss = 3.6 dB, Magnetic mount cable loss = 8db at test frequency			
	Amplifier output : 2.5 watts or 33.99 dBm			
	With a cable loss of 3.6dB, drive power into antenna is 1.09 watts or 30.39 dBm			

MPBT: D. ZANETTE	CUSTOMER: M.C.T. INC.	5 OF 6

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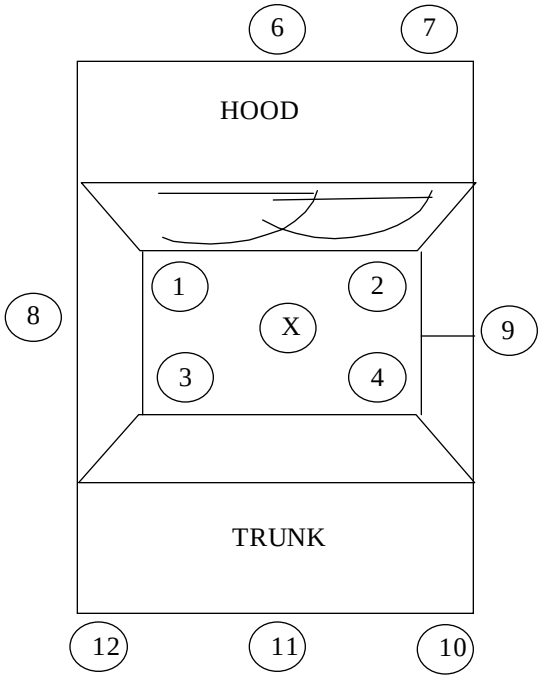
Antenna – Magnetic Mount With High Gain, Model SEM15 (4DBI)



Point	Reading (V/m)	INT./EXT.
1 –HEAD	8.0	INT.
2 – HEAD	9.1	INT.
3 – HEAD	5.4	INT.
4 – HEAD	6.6	INT.
1 – PELVIC	11.6	INT.
2 – PELVIC	10.1	INT.
3 – PELVIC	10.2	INT.
4 – PELVIC	7.6	INT.
5	7.0	EXT.
6	6.2	EXT.
7	5.6	EXT.
8	14.6	EXT.
9	13.4	EXT.
10	6.6	EXT.
11	7.4	EXT.
12	8.0	EXT.

NOTE: "X" REFERS TO POSITION OF ANTENNA. CAR WAS A HONDA CIVIC DX. POINT 8 (WORST CASE) WAS ACHIEVED AT 20 CM FROM ANTENNA.

Limit = 0.549 mw/cm^2

Max Output = 14.6V/m = 0.135mw/cm^2 @ 20cm being below maximum safety limit

The EUT complies with maximum permissible exposure requirements.

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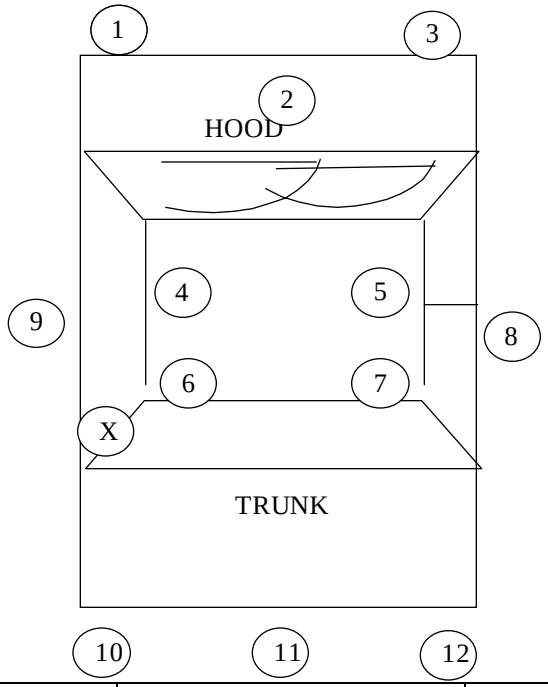
Antenna – Glass mount, Model SEM2, (5DBi)



Point	Reading (V/m)	INT./EXT.
1	5.4	EXT.
2	4.4	EXT.
3	3.8	EXT.
4 – HEAD	21.2	INT.
5 – HEAD	21.8	INT.
6 – HEAD	23.1	INT.
7 – HEAD	18.4	INT.
4 – PELVIC	17.2	INT.
5 – PELVIC	11.6	INT.
6 – PELVIC	19.6	INT.
7 – PELVIC	12.8	INT.
8	7.2	EXT.
9	**27.0**	**EXT.**
10	7.4	EXT.
11	8.0	EXT.
12	4.6	EXT.

NOTE: "X" REFERS TO POSITION OF ANTENNA. CAR WAS A HONDA CIVIC DX. POINT 9 (WORST CASE) WAS ACHIEVED AT 12 INCHES (30 CM) FROM GLASS MOUNT ANTENNA.

Limit = 0.549 mw/cm^2 at 20cm

Max Output = 27.0V/m = 0.195 mw/cm^2 **@ 12 inches (30cm) being user recommended minimum safety distance**

The EUT complies with maximum permissible exposure requirements.

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