Client:	GE MDS LLC	Job Number:	J97895
Model:	SD4 Master Module	T-Log Number:	T97900
		Project Manager:	Christine Krebill
Contact:	Dennis McCarthy	Project Coordinator:	-
Standard:	FCC Part 15, 22 & 90, EN 300 113-2	Class:	A

Maximum Permissible Exposure

Test Specific Details

Objective: Evaluate the RF Exposure requirements per FCC 1.1310, 2.1091 and RSS-102.

Date performed: 6/16/2015
Test Engineer: David Bare

General Test Configuration

Calculation uses the free space transmission formula:

$$S = (PG)/(4\ \pi d^2)$$

Where: S is power density (W/m^2), P is output power (W), G is antenna gain relative to isotropic, d is separation distance from the transmitting antenna (m).

Summary of Results

Device complies with Power Density requirements at 20cm separation:	No
If not, required separation distance (in cm):	5.4m

Deviations From The Standard

No deviations were made from the requirements of the standard.

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FCC MPE Calculation

Use: General

Antenna: 16.5 dBi maximum gain

GE MDS statted that the output power is the maximum power given manufacturing tolerances/tune-up procedures.

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
406.1	41.1	12882.5	0	16.5	41.1	575439.94	114.480	0.271
406.1	41.1	12882.5	0	10	41.1	128824.96	25.629	0.271
406.1	41.1	12882.5	0	5	41.1	40738.03	8.105	0.271

For the cases where S > the MPE Limit

Freq. MHz	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2	Distance where S <= MPE Limit cm
406.1	114.480	0.271	411.3
406.1	25.629	0.271	194.6
406.1	8.105	0.271	109.4

Industry Canada MPE Calculation

Use: General

Antenna: 16.5 dBi maximum gain

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
406.1	41.1	12882.5	0	16.5	41.1	575439.94	114.480	0.159
406.1	41.1	12882.5	0	10	41.1	128824.96	25.629	0.159
406.1	41.1	12882.5	0	5	41.1	40738.03	8.105	0.159

For the cases where S > the MPE Limit

Freq. MHz	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2	Distance where S <= MPE Limit cm
406.1	114.480	0.159	537.0
406.1	25.629	0.159	254.1
406.1	8.105	0.159	142.9

As all channels have the same power and antenna gain, the lowest frequency channel requires the greatest RF safety distance.