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CTIA Authorized Test Lab
LAB CODE 20080208-00

ilac-MRA ENAC ENSAYOS Nº 51/LE147

Test report No:

NIE: 47066RRF.001

Test report

CTIA Test plan for mobile station over the air performance. Method of measurement for radiated RF power and receiver performance. May 2015. Revision 3.4.2

Identification of item tested.....:	Vehicle Tracking equipment
Trademark .....:	Pointer
Model and/or type reference .....:	CR300B 3G NA CT7801200-000
Other identification of the product .....:	FCC ID: RI7UE910NA
Final HW version .....:	B
Final SW version .....:	43
IMEI TAC.....:	35467605
Features :	Event Memory: ~5 K full time stamped events • Built-in Motion Sensor for movement & towing detection • 1-wire interface • Ignition input, 2 programmable GPIOs and 2 outputs • Small size for quick and easy installation • Current in sleep mode: as low as 2mA• IP40 • GPRS / SMS communication types •Roaming management • Online event-driven reporting • Geo-Fence management • Cellocator + maintenance server support
Manufacturer .....:	Company name: Pointer Telocation Inc Postal Address: 7715 NW 48th Street, Suite 395 Doral, FL 33166 Contact person: Jay Pico Telephone: +1 (305) 903-6634 Email: Jayp@pointer.com
Test method requested, standard.....:	[1] CTIA Test plan for mobile station over the air performance. Method of measurement for radiated RF power and receiver performance. May 2015. Revision 3.4.2.
Summary.....:	IN COMPLIANCE
Approved by (name / position & signature) .....:	Alejandro Llamas Radiofrequency Laboratory Manager Firmado digitalmente por Alejandro Llamas Rodríguez Fecha: 2015.11.19 12:32:26 +01'00'
Date of issue .....:	2015-11-19
Report template No.....:	FDT08_17

Instrumentation used.....:	1. Anechoic chamber ETS LINDGREN S501 Hatch. 2. Positioning system ETS LINDGREN 2115-72 3. Positioning system controller ETS LINDGREN 2090 4. Laser system CST/Berger, modelo MP5 5. Log spiral conical antenna ETS LINDGREN 3102 6. Limiting amplifier ETS LINDGREN 109643 7. AGC amplifier ETS LINDGREN 116039 8. Dual polarized horn antenna ETS LINDGREN 3164-04 9. OTA measurement software ETS LINDGREN EMQuest v1.08 10. Spectrum analyzer Rohde & Schwarz FSU 11. Agilent 8960 Series 10 E5515C Wireless Communication Test Set 12. RF switch unit mainframe Agilent 3499A 13. Dual 1 to 6 microwave module Agilent N2276A. 14. Microwave switch module Agilent 44476A 15. Temperature and Humidity probe, model HUMIDIPROBE

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Competences and guarantees

AT4 wireless is a testing laboratory accredited by the National Accreditation Body (ENAC -Entidad Nacional de Acreditación), to perform the tests indicated in the Certificate No. 51/LE 147.

AT4 wireless is a CTIA authorized testing laboratory with lab code 20080208-00.

In order to assure the traceability to other national and international laboratories, AT4 wireless has a calibration and maintenance program for its measurement equipment.

AT4 wireless guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at AT4 wireless at the time of performance of the test.

AT4 wireless is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
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4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of AT4 wireless and the Accreditation Bodies.

Uncertainty

Uncertainty (factor k=2) was calculated according to the following documents:

1. CTIA Test plan for mobile station over the air performance. Method of measurement for radiated RF power and receiver performance. May 2015. Revision 3.4.2.
2. FAN02_00 - OTA SISO CTIA - AMS-8500 Uncertainty report

Usage of samples

Samples undergoing test have been selected by the client.

Sample M/01 is composed of the following elements:

Control Nº	Description	Model	Serial Nº	Date of reception
47066/01	Vehicle Tracking equipment	CR300B 3G NA CT7801200-000	IMEI: 354676051337268	2015/11/03

1. Sample M/01 has undergone the test(s) specified in subclause "Test method requested".

Test sample description

The test sample consists of a Smart Entry Level Device for Fleet Management & SVR Fleet Management SVR Insurance & Leasing Basic Track & Trace CR300 is a compact size entry-level device for Fleet Management and Vehicle Security Applications. This device is available in two versions: CR300 and CR300B. It targets large fleets, insurance and leasing companies. The CR300 is competitively priced for large-scale deployments, its premium features can be added and enabled over the air utilizing Cellocator + web-based maintenance server with feature programmable I/O. The CR300B includes all the features of the CR300. In addition, it comes equipped with a rechargeable battery and GSM jamming detection algorithms for improved compliance with vehicle security applications, and supports average hibernation. The CR300 family is compatible with a variety of accessories; which enable applications such as fuel monitoring, temperature monitoring and more

Identification of the client

Same as manufacturer (see cover page).

Testing period

The performed test started on 2015-11-04 and finished on 2015-11-05.

The tests have been performed at AT4 wireless.

Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 23.93 ºC Max. = 25.88 ºC
Relative humidity	Min. = 48.65 % Max. = 59.51 %

Remarks and comments

None.

Testing verdicts

Not applicable ..... :	N/A
Pass ..... :	P
Fail ..... :	F
Information ..... :	I
Not measured ..... :	N/M

GPRS 850:

CTIA Test Plan for Mobile Station Over the Air. Revision 3.4.2, PARAGRAPH	VERDICT				
	N/A	P	F	I	N/M
5.5 : TRP				X	
6.5 : TIS				X	
6.5: Intermediate Channel Relative Sensitivity		X			

EGPRS 850:

CTIA Test Plan for Mobile Station Over the Air. Revision 3.4.2, PARAGRAPH	VERDICT				
	N/A	P	F	I	N/M
5.6 : TRP				X	
6.6 : TIS				X	
6.6: Intermediate Channel Relative Sensitivity		X			

GPRS 1900:

CTIA Test Plan for Mobile Station Over the Air. Revision 3.4.2, PARAGRAPH	VERDICT				
	N/A	P	F	I	N/M
5.5 : TRP				X	
6.5 : TIS				X	
6.5: Intermediate Channel Relative Sensitivity		X			

EGPRS 1900:

CTIA Test Plan for Mobile Station Over the Air. Revision 3.4.2, PARAGRAPH	VERDICT				
	N/A	P	F	I	N/M
5.6 : TRP				X	
6.6 : TIS				X	
6.6: Intermediate Channel Relative Sensitivity		X			

WCDMA II:

CTIA Test Plan for Mobile Station Over the Air. Revision 3.4.2, PARAGRAPH	VERDICT				
	N/A	P	F	I	N/M
5.7 : TRP				X	
6.7 : TIS				X	
6.7: Intermediate Channel Relative Sensitivity		X			

WCDMA V:

CTIA Test Plan for Mobile Station Over the Air. Revision 3.4.2, PARAGRAPH	VERDICT				
	N/A	P	F	I	N/M
5.7 : TRP				X	
6.7 : TIS				X	
6.7: Intermediate Channel Relative Sensitivity		X			

Appendix A – Test results

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1. TEST RESULTS

1.1 Equipment Under Test (EUT) information

Manufacturer	Pointer Telocation Inc
Model	CR300B 3G NA CT7801200-000
Serial Number(s)/ESN(s)/IMEI(s)	IMEI: 35467605
FCC ID Number	RI7UE910NA
Hardware Version	B
Software Version	43
Configuration of Primary Mechanical Mode	Integrated device (only one)

1.2 EUTs used for each test

Serial Number/ ESN/IMEI	CATL/ Chamber used	RAT(s)	Band(s)	Test Type(s)	Test Condition(s)
IMEI: 35467605	Code 20080208-00 / ETS Lindgren AMS-8500	GPRS / EGPRS / WCDMA	Cellular 850 / PCS 1900 / WCDMA Bands II / V	TRP / TIS / ICS	Free Space

1.3 Cellular OTA Summation Test Report

GPRS/EGPRS – TRP Test Results

Band / Tech	Channel	Frequency (MHz)	Conducted power (dBm)	TRP (dBm)					NHPRP ± 45° (dBm)					NHPRP ± 30° (dBm)				
				FS	HL	HR	BHHL	BHHR	FS	HL	HR	BHHL	BHHR	FS	HL	HR	BHHL	BHHR
Cellular / GPRS 850	128	824.20	-	26.23	-	-	-	-	23.78	-	-	-	-	21.17	-	-	-	-
	190	836.6	-	26.90	-	-	-	-	24.70	-	-	-	-	21.89	-	-	-	-
	251	848.80	-	27.98	-	-	-	-	25.92	-	-	-	-	23.13	-	-	-	-
Cellular / EGPRS 850	128	824.20	-	21.11	-	-	-	-	18.66	-	-	-	-	16.05	-	-	-	-
	190	836.6	-	21.46	-	-	-	-	19.27	-	-	-	-	16.45	-	-	-	-
	251	848.80	-	22.46	-	-	-	-	20.40	-	-	-	-	17.61	-	-	-	-
PCS / GPRS 1900	512	1850.2	-	27.71	-	-	-	-	25.49	-	-	-	-	24.31	-	-	-	-
	661	1880	-	27.69	-	-	-	-	25.36	-	-	-	-	24.14	-	-	-	-
	810	1909.8	-	27.79	-	-	-	-	25.49	-	-	-	-	24.31	-	-	-	-
PCS / EGPRS 1900	512	1850.2	-	23.45	-	-	-	-	21.23	-	-	-	-	20.05	-	-	-	-
	661	1880	-	23.07	-	-	-	-	20.73	-	-	-	-	19.51	-	-	-	-
	810	1909.8	-	23.90	-	-	-	-	21.61	-	-	-	-	20.42	-	-	-	-

FS = Free Space
HL = Hand Left (Hand Phantom Only)
HR = Hand Right (Hand Phantom Only)
BHHL = Beside Head and Hand Left Side (Head and Hand Phantom)
BHHR = Beside Head and Hand Right Side (Head and Hand Phantom)
- = Not Applicable

GPRS/EGPRS – TIS Test Results

Band / Tech	Channel	Frequency (MHz)	Conducted sensitivity (dBm)	TIS (dBm)					NHPIS ± 45° (dBm)					NHPIS ± 30° (dBm)				
				FS	HL	HR	BHHL	BHHR	FS	HL	HR	BHHL	BHHR	FS	HL	HR	BHHL	BHHR
Cellular / GPRS 850	128	869.20	-	-106.32	-	-	-	-	-104.58	-	-	-	-	-102.35	-	-	-	-
	190	881.60	-	-108.92	-	-	-	-	-107.17	-	-	-	-	-104.96	-	-	-	-
	251	893.80	-	-108.04	-	-	-	-	-106.07	-	-	-	-	-103.94	-	-	-	-
Cellular / EGPRS 850	128	869.20	-	-100.88	-	-	-	-	-99.14	-	-	-	-	-96.91	-	-	-	-
	190	881.60	-	-102.81	-	-	-	-	-101.06	-	-	-	-	-98.85	-	-	-	-
	251	893.80	-	-100.77	-	-	-	-	-98.80	-	-	-	-	-96.67	-	-	-	-
PCS / GPRS 1900	512	1930.2	-	-109.20	-	-	-	-	-107.67	-	-	-	-	-106.15	-	-	-	-
	661	1960	-	-110.90	-	-	-	-	-107.67	-	-	-	-	-107.84	-	-	-	-
	810	1989.8	-	-109.92	-	-	-	-	-108.25	-	-	-	-	-106.69	-	-	-	-
PCS / EGPRS 1900	512	1930.2	-	-100.70	-	-	-	-	-99.17	-	-	-	-	-97.65	-	-	-	-
	661	1960	-	-102.40	-	-	-	-	-100.79	-	-	-	-	-99.33	-	-	-	-
	810	1989.8	-	-101.42	-	-	-	-	-99.75	-	-	-	-	-98.19	-	-	-	-

FS = Free Space
HL = Hand Left (Hand Phantom Only)
HR = Hand Right (Hand Phantom Only)
BHHL = Beside Head and Hand Left Side (Head and Hand Phantom)
BHHR = Beside Head and Hand Right Side (Head and Hand Phantom)
- = Not Applicable

WCDMA - TRP Test Results

Band / Tech	Channel	Frequency (MHz)	Conducted power (dBm)	TRP (dBm)					NHPRP ± 45° (dBm)					NHPRP ± 30° (dBm)				
				FS	HL	HR	BHHL	BHHR	FS	HL	HR	BHHL	BHHR	FS	HL	HR	BHHL	BHHR
WCDMA Band II	9262	1852.4	-	21.59	-	-	-	-	19.39	-	-	-	-	18.20	-	-	-	-
	9400	1880	-	21.56	-	-	-	-	19.28	-	-	-	-	18.08	-	-	-	-
	9538	1907.6	-	21.07	-	-	-	-	18.80	-	-	-	-	17.61	-	-	-	-
WCDMA Band V	4132	826.4	-	20.07	-	-	-	-	17.69	-	-	-	-	15.19	-	-	-	-
	4183	836.6	-	20.12	-	-	-	-	17.87	-	-	-	-	15.05	-	-	-	-
	4233	846.6	-	20.48	-	-	-	-	18.29	-	-	-	-	15.38	-	-	-	-

FS = Free Space
HL = Hand Left (Hand Phantom Only)
HR = Hand Right (Hand Phantom Only)
BHHL = Beside Head and Hand Left Side (Head and Hand Phantom)
BHHR = Beside Head and Hand Right Side (Head and Hand Phantom)
- = Not Applicable

WCDMA – TIS Test Results

Band / Tech	Channel	Frequency (MHz)	Conducted sensitivity (dBm)	TIS (dBm)					NHPIS ± 45° (dBm)					NHPIS ± 30° (dBm)				
				FS	HL	HR	BHHL	BHHR	FS	HL	HR	BHHL	BHHR	FS	HL	HR	BHHL	BHHR
WCDMA Band II	9662	1932.4	-	-105.22	-	-	-	-	-103.02	-	-	-	-	-101.33	-	-	-	-
	9800	1960	-	-106.98	-	-	-	-	-104.81	-	-	-	-	-103.16	-	-	-	-
	9938	1987.6	-	-108.70	-	-	-	-	-106.71	-	-	-	-	-105.21	-	-	-	-
WCDMA Band V	4357	871.4	-	-109.15	-	-	-	-	-107.86	-	-	-	-	-106.41	-	-	-	-
	4408	881.6	-	-108.05	-	-	-	-	-106.69	-	-	-	-	-105.05	-	-	-	-
	4458	891.6	-	-108.28	-	-	-	-	-106.83	-	-	-	-	-105.02	-	-	-	-

FS = Free Space
HL = Hand Left (Hand Phantom Only)
HR = Hand Right (Hand Phantom Only)
BHHL = Beside Head and Hand Left Side (Head and Hand Phantom)
BHHR = Beside Head and Hand Right Side (Head and Hand Phantom)
- = Not Applicable

1.4 GPRS/EGPRS and WCDMA Intermediate Channel Relative Sensitivity (RS)

Band / Mode	Intermediate Channels	FS	BHHR	Comments
Cellular / GPRS 850	128-159	Pass	-	
	160-220	Pass	-	
	221-251	Pass	-	
Cellular / EGPRS 850	128-159	Pass	-	
	160-220	Pass	-	
	221-251	Pass	-	
PCS / GPRS 1900	512-586	Pass	-	
	587-735	Pass	-	
	736-810	Pass	-	
PCS / EGPRS 1900	512-586	Pass	-	
	587-735	Pass	-	
	736-810	Pass	-	
WCDMA Band II	9662-9728	Pass	-	
	9740-9860	Pass	-	
	9872-9938	Pass	-	
WCDMA Band V	4357-4372	Pass	-	
	4384-4432	Pass	-	
	4444-4458	Pass	-	

FS = Free Space
BHHR = Beside Head and Hand Right Side (Head and Hand Phantom)
- = Not Applicable

1.5 Minimum TRP level requirements

1.5.1 GPRS, EGPRS and WCDMA minimum TRP level requirements for the primary mechanical mode[1] [2]

Mode	Device Held Up to Head for Voice (Yes?/No4)	Device Power Class	Multi-sol Class	Channel	TX Frequency (MHz)	FS			HL			HR			BHHL			BHHR		
						Limit (dBm)	Test Results (dBm)	Pass/Fail//Info	Limit (dBm)	Test Results (dBm)	Pass/Fail//Info	Limit (dBm)	Test Results (dBm)	Pass/Fail//Info	Limit (dBm)	Test Results (dBm)	Pass/Fail//Info	Limit (dBm)	Test Results (dBm)	Pass/Fail//Info
GPRS 850	NO	4	10	128	824.2	23	26.23	Info	-	-	-	-	-	-	-	-	-	-	-	-
				190	836.6		26.90	Info		-	-		-	-		-	-		-	-
				251	848.8		27.98	Info		-	-		-	-		-	-		-	-
EGPRS 850	NO	E2	10	128	824.2	20	21.11	Info	-	-	-	-	-	-	-	-	-	-	-	-
				190	836.6		21.46	Info		-	-		-	-		-	-		-	-
				251	848.8		22.46	Info		-	-		-	-		-	-		-	-
GPRS 1900	NO	1	10	512	1850.2	21,5	27.71	Info	-	-	-	-	-	-	-	-	-	-	-	-
				661	1880		27.69	Info		-	-		-	-		-	-		-	-
				810	1909.8		27.79	Info		-	-		-	-		-	-		-	-
EGPRS 1900	NO	E2	10	512	1850.2	20,5	23.45	Info	-	-	-	-	-	-	-	-	-	-	-	-
				661	1880		23.07	Info		-	-		-	-		-	-		-	-
				810	1909.8		23.90	Info		-	-		-	-		-	-		-	-
WCDMA II	NO	3	-	9262	1852.4	18,5	21.59	Info	-	-	-	-	-	-	-	-	-	-	-	-
				9400	1880		21.56	Info		-	-		-	-		-	-		-	-
				9538	1907.6		21.07	Info		-	-		-	-		-	-		-	-
WCDMA V	NO	3	-	4132	826,4	17	20.07	Info	-	-	-	-	-	-	-	-	-	-	-	-
				4183	836,6		20.12	Info		-	-		-	-		-	-		-	-
				4233	846,6		20.48	Info		-	-		-	-		-	-		-	-

Note 1: Primary Mechanical Mode refers to device configured in preferred mode per manufacturer instructions (one only in this case).

Note 2: The associated TRP limits for GPRS are based on measurements made with one uplink slot, which are 26 dBm for 850 MHz band and 24.5 dBm for 1900 MHz band. Devices tested using two uplink slots are allowed a TRP reduction of up to 3 dB, therefore the actual GPRS TRP limits are 23 dBm (850 MHz band) and 21.5 dBm (1900 MHz band) in this case.
The associated TRP limits for EGPRS are based on measurements made with one or two uplink slots, which are 20 dBm for 850 MHz band and 20.5 dBm for 1900 MHz band.

Note 3: "Yes" applies if the device supports voice operation in the talking position against the head in any cellular radio mode.

Note 4: "No" would be applicable to data-centric devices that are not held up against the head, e.g., embedded laptop solutions.

FS = Free Space
HL = Hand Left (Hand Phantom Only)
HR = Hand Right (Hand Phantom Only)
BHHL = Beside Head and Hand Left Side (Head and Hand Phantom)
BHHR = Beside Head and Hand Right Side (Head and Hand Phantom)
TDB = To Be Determined;
- = Not Applicable

1.6 Maximum TIS level requirements

1.6.1 GPRS, EGPRS and WCDMA maximum TIS level requirements for the primary mechanical mode[1]

Mode	Device Held Up to Head for Voice (Yes2/No3)	Device Power Class	Multi-sol Class	Channel	RX Frequency (MHz)	FS			HL			HR			BHHL			BHHR		
						Limit (dBm)	Test Results (dBm)	Pass/Fail//Info	Limit (dBm)	Test Results (dBm)	Pass/Fail//Info	Limit (dBm)	Test Results (dBm)	Pass/Fail//Info	Limit (dBm)	Test Results (dBm)	Pass/Fail//Info	Limit (dBm)	Test Results (dBm)	Pass/Fail//Info
GPRS 850	NO	4	10	128	824.2	-99	-106.3	Info	-	-	-	-	-	-	-	-	-	-	-	-
				190	836.6		-108.9	Info		-	-		-	-		-	-		-	-
				251	848.8		-108.0	Info		-	-		-	-		-	-		-	-
EGPRS 850	NO	E2	10	128	824.2	-94	-100.9	Info	-	-	-	-	-	-	-	-	-	-	-	-
				190	836.6		-102.8	Info		-	-		-	-		-	-		-	-
				251	848.8		-100.8	Info		-	-		-	-		-	-		-	-
GPRS 1900	NO	1	10	512	1850.2	-101,5	-109.2	Info	-	-	-	-	-	-	-	-	-	-	-	-
				661	1880		-110.9	Info		-	-		-	-		-	-		-	-
				810	1909.8		-109.92	Info		-	-		-	-		-	-		-	-
EGPRS 1900	NO	E2	10	512	1850.2	-97	-100.7	Info	-	-	-	-	-	-	-	-	-	-	-	-
				661	1880		-102.4	Info		-	-		-	-		-	-		-	-
				810	1909.8		-101.42	Info		-	-		-	-		-	-		-	-
WCDMA II	NO	3	-	9662	1932.4	-102	-105.22	Info	-	-	-	-	-	-	-	-	-	-	-	-
				9800	1960		-106.98	Info		-	-		-	-		-	-		-	-
				9938	1987.6		-108.7	Info		-	-		-	-		-	-		-	-
WCDMA V	NO	3	-	4357	871,4	-100	-109.15	Info	-	-	-	-	-	-	-	-	-	-	-	-
				4408	881,6		-108.05	Info		-	-		-	-		-	-		-	-
				4458	891,6		-108.28	Info		-	-		-	-		-	-		-	-

Note 1: Primary Mechanical Mode refers to device configured in preferred mode per manufacturer instructions (one only in this case).

Note 2: "Yes" applies if the device supports voice operation in the talking position against the head in any cellular radio mode.

Note 3: "No" would be applicable to data-centric devices that are not held up against the head, e.g., embedded laptop solutions.

FS = Free Space
HL = Hand Left (Hand Phantom Only)
HR = Hand Right (Hand Phantom Only)
BHHL = Beside Head and Hand Left Side (Head and Hand Phantom)
BHHR = Beside Head and Hand Right Side (Head and Hand Phantom)
TDB = To Be Determined
- = Not Applicable

2. EXPANDED MEASUREMENT UNCERTAINTIES

The expanded measurement uncertainties are listed below for the different frequency bands. These uncertainties refer to a coverage factor of 2, corresponding to 95% confidence level.

Table 1. ***Total Normal and Alternate TRP Measurement Uncertainty results for different configurations***

Test Method	**TRP Test Configuration**	**Uncertainty Expanded Uncertainty** (k=2, 95 % confidence level) [dB]					
		LTE 700 699-798 MHz	**Cellular 824-894 MHz**	**AWS-1 Tx 1710-1755 MHz**	**PCS 1850-1990 MHz**	**LTE 41 2300-2800 MHz**	**Limits according to CTIA test plan v3.3.2, table 7-8**
Normal	**FREE SPACE**	1.56	1.41	1.53	1.58	1.69	2.0
	PHANTOM HEAD AND HAND	2.11	1.96	1.97	2.01	2.10	2.4
	PHANTOM HAND ONLY	1.81	1.68	1.78	1.83	1.92	2.2
	LAPTOPS OVER 30cm	1.70	1.52	1.53	1.59	1.69	2.0
Alternate	**FREE SPACE**	1.67	1.54	1.65	1.70	1.80	2.0
	PHANTOM HEAD AND HAND	2.20	2.05	2.06	2.11	2.19	2.4
	PHANTOM HAND ONLY	1.91	1.79	1.89	1.93	2.02	2.2
	LAPTOPS OVER 30cm	1.81	1.64	1.65	1.70	1.80	2.0

Table 2. ***Total Normal, RSS based and Alternate TIS Measurement Uncertainty results for different configurations***

Test Method	**TIS Test Configuration**	**Uncertainty Expanded Uncertainty** (k=2, 95 % confidence level) [dB]						
		LTE 700 699-798 MHz	**Cellular 824-894 MHz**	**GPS 1575.42 MHz**	**PCS 1850-1990 MHz**	**AWS-1 Rx 2110-2155 MHz**	**LTE 41 2300-2800 MHz**	**Limits according to CTIA test plan v3.3.2, table 7-8**
Normal	**FREE SPACE**	1.78	1.65	--	1.80	1.83	1.89	2.3
	PHANTOM HEAD AND HAND	2.28	2.14	--	2.19	2.22	2.27	2.6
	PHANTOM HAND ONLY	2.00	1.85	--	2.02	2.05	2.10	2.4
	LAPTOPS OVER 30cm	1.91	1.74	--	1.80	1.84	1.90	2.3
RSS based	**FREE SPACE**	1.98	1.86	1.94	2.00	2.02	2.08	2.3
	PHANTOM HEAD AND HAND	2.44	2.31	2.32	2.35	2.38	2.43	2.6
	PHANTOM HEAD ONLY	2.18	2.08	2.15	2.20	2.22	2.27	2.4
	LAPTOPS OVER 30cm	2.09	1.94	1.96	2.00	2.03	2.08	2.3
Alternate	**FREE SPACE**	2.01	1.90	--	2.03	2.05	2.11	2.3
	PHANTOM HEAD AND HAND	2.46	2.34	--	2.38	2.41	2.45	2.6
	PHANTOM HAND ONLY	2.21	2.11	--	2.23	2.25	2.30	2.4
	LAPTOPS OVER 30cm	2.13	1.98	--	2.03	2.07	2.11	2.3

3. RF TEST RESULT ON 3D

3.1 TRP GPRS 850 MHz – Free Space

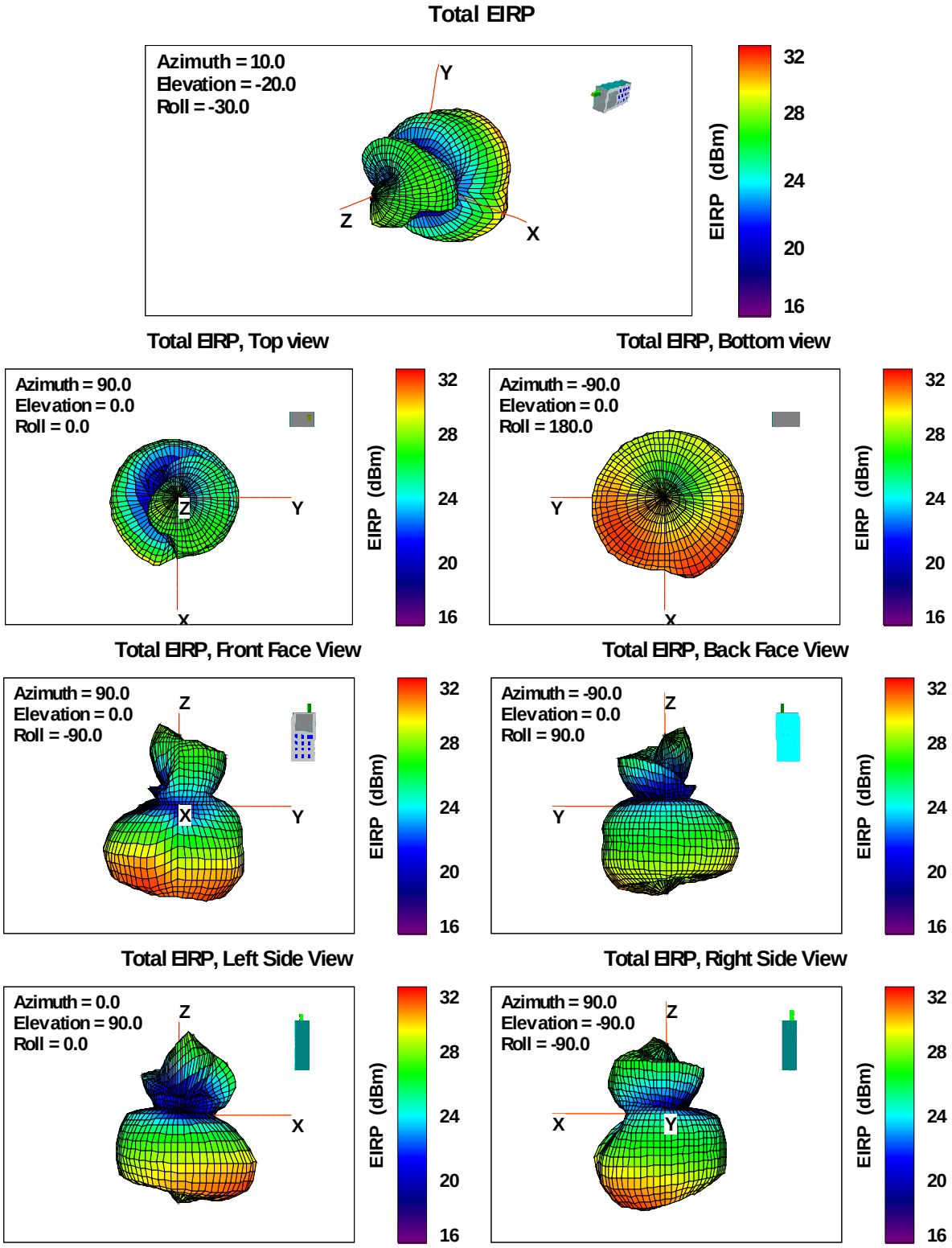


Fig. 1. Total EIRP, Free Space, middle channel, GPRS 850 MHz.

3.2 TIS GPRS 850 MHz – Free Space

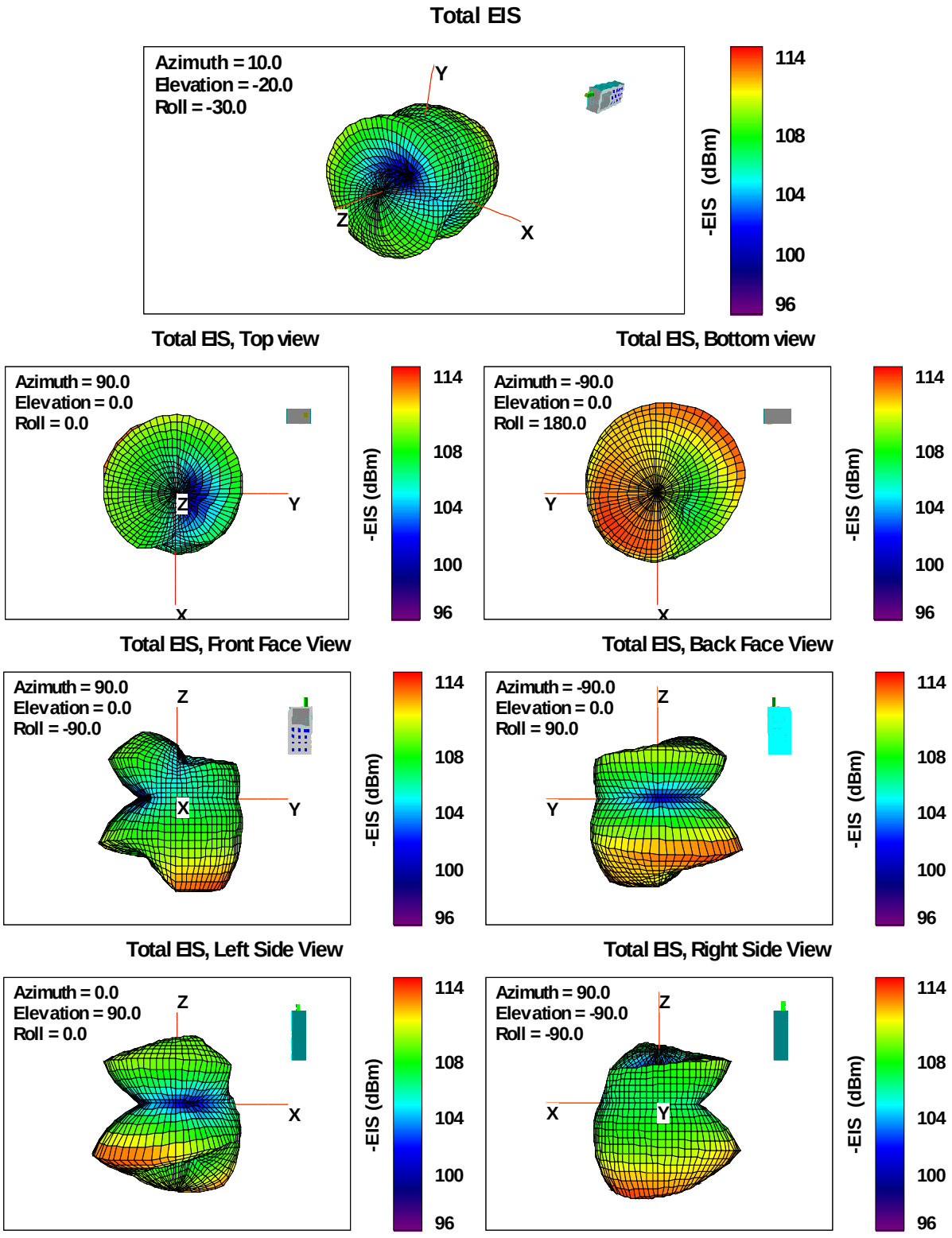


Fig. 2. Total EIS, Free Space, middle channel, GPRS 850 MHz.

3.3 TRP GPRS 1900 MHz – Free Space

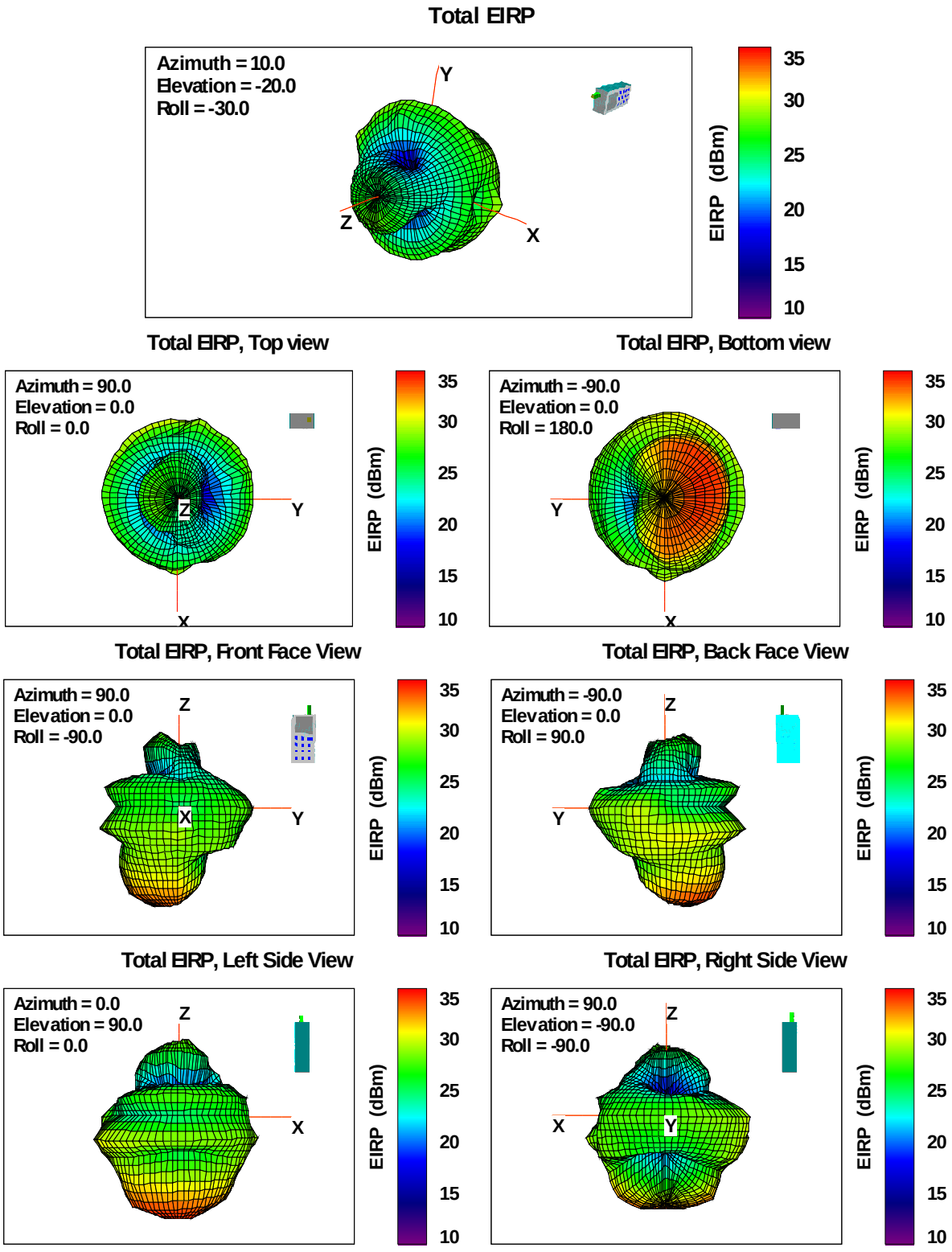


Fig. 3. Total EIRP, Free Space, middle channel, GPRS 1900 MHz.

3.4 TIS GPRS 1900 MHz – Free Space

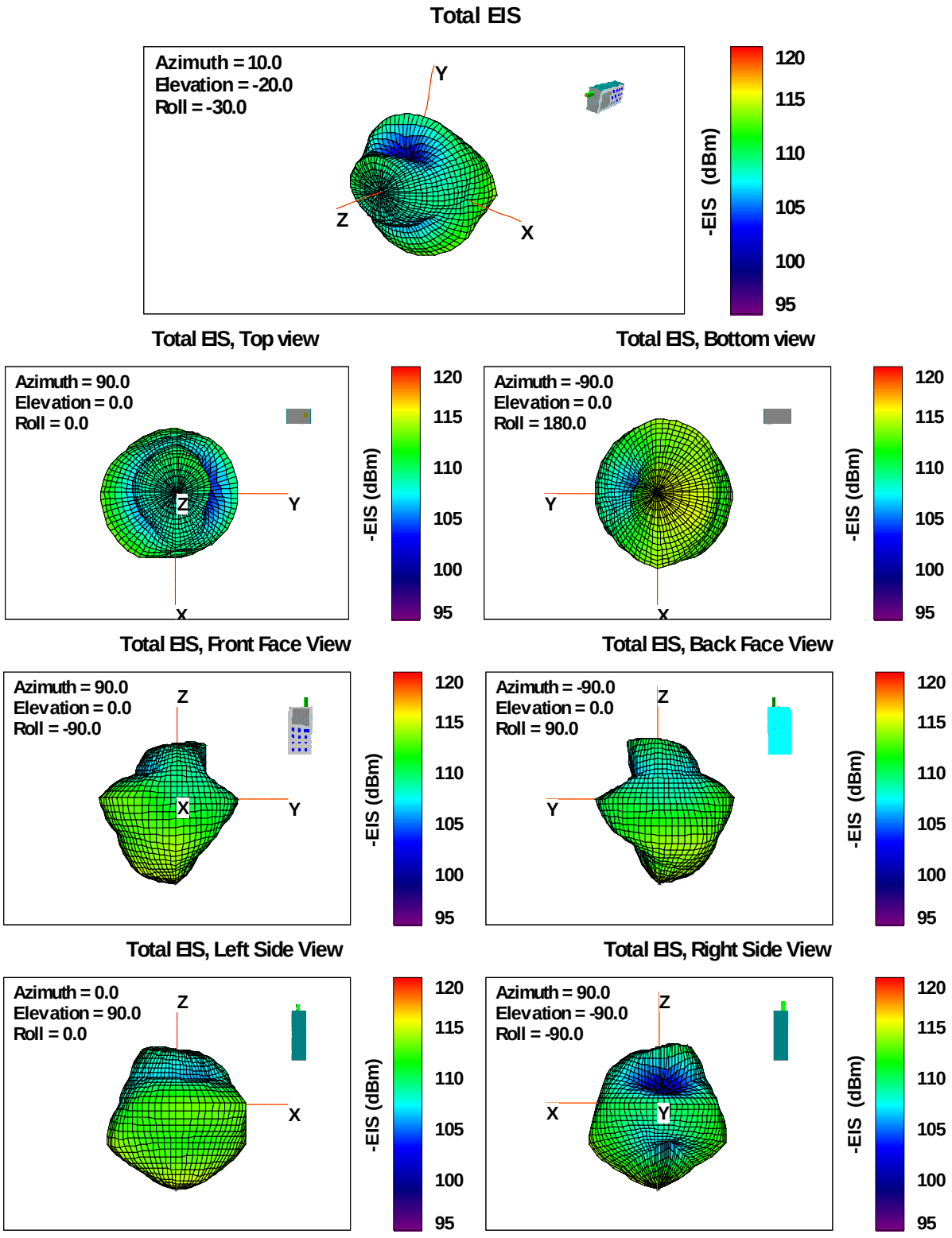


Fig. 4. Total EIS, Free Space, middle channel, GPRS 1900 MHz.

3.5 TRP WCDMA Band II – Free Space

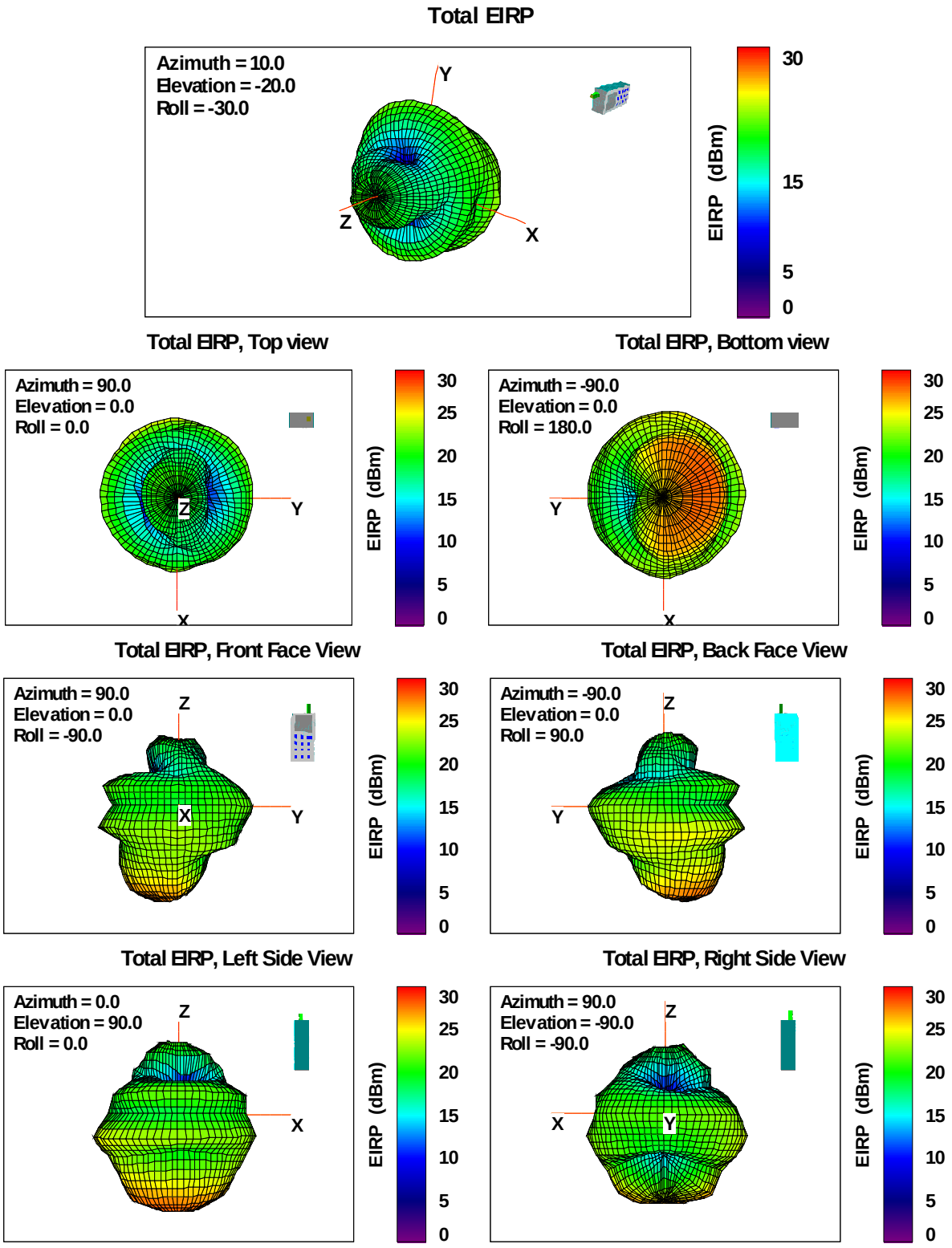


Fig. 5. Total EIRP, Free Space, middle channel, WCDMA Band II.

3.6 TIS WCDMA Band II – Free Space

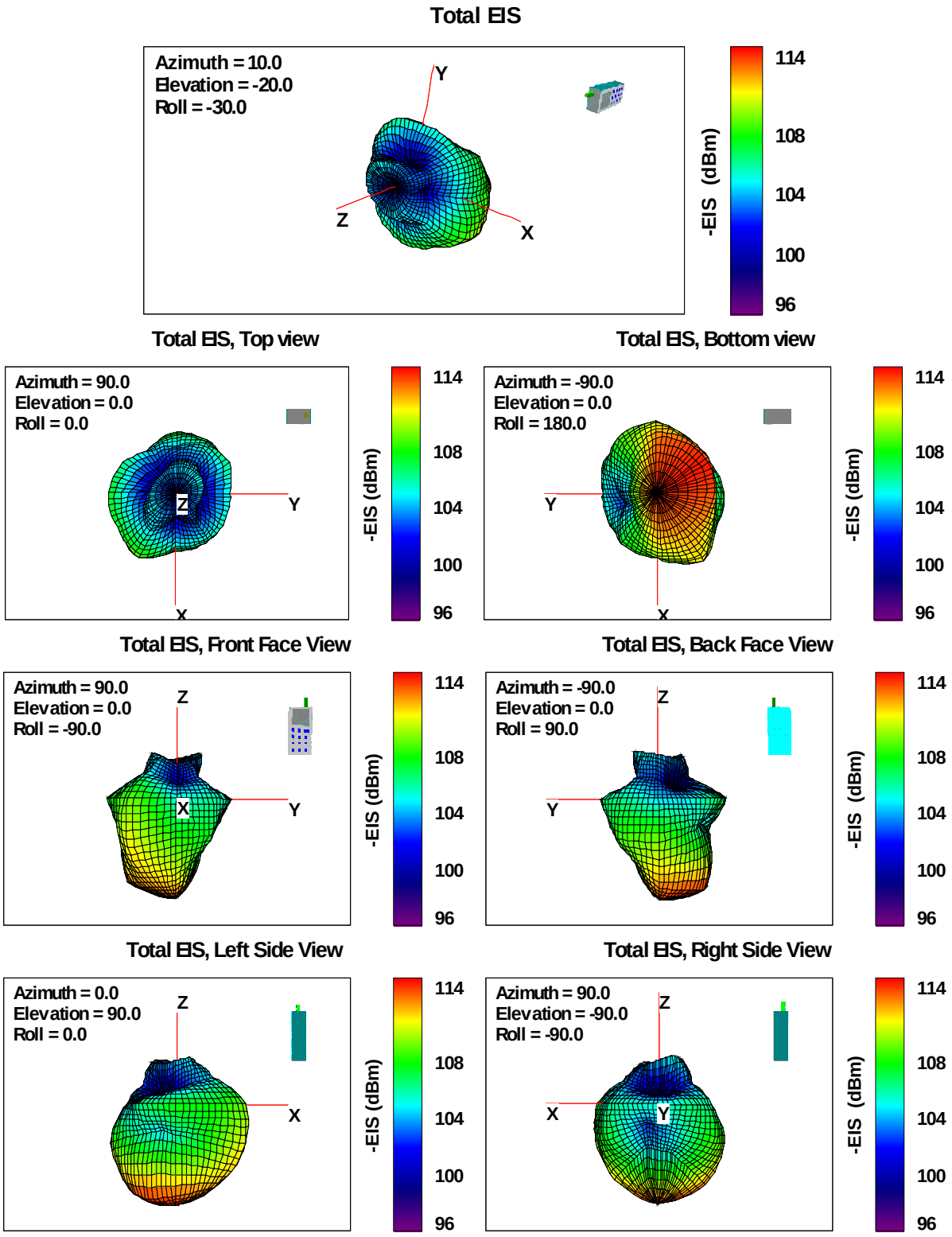


Fig. 6. Total EIS, Free Space, middle channel, WCDMA Band II.

3.7 TRP WCDMA Band V – Free Space

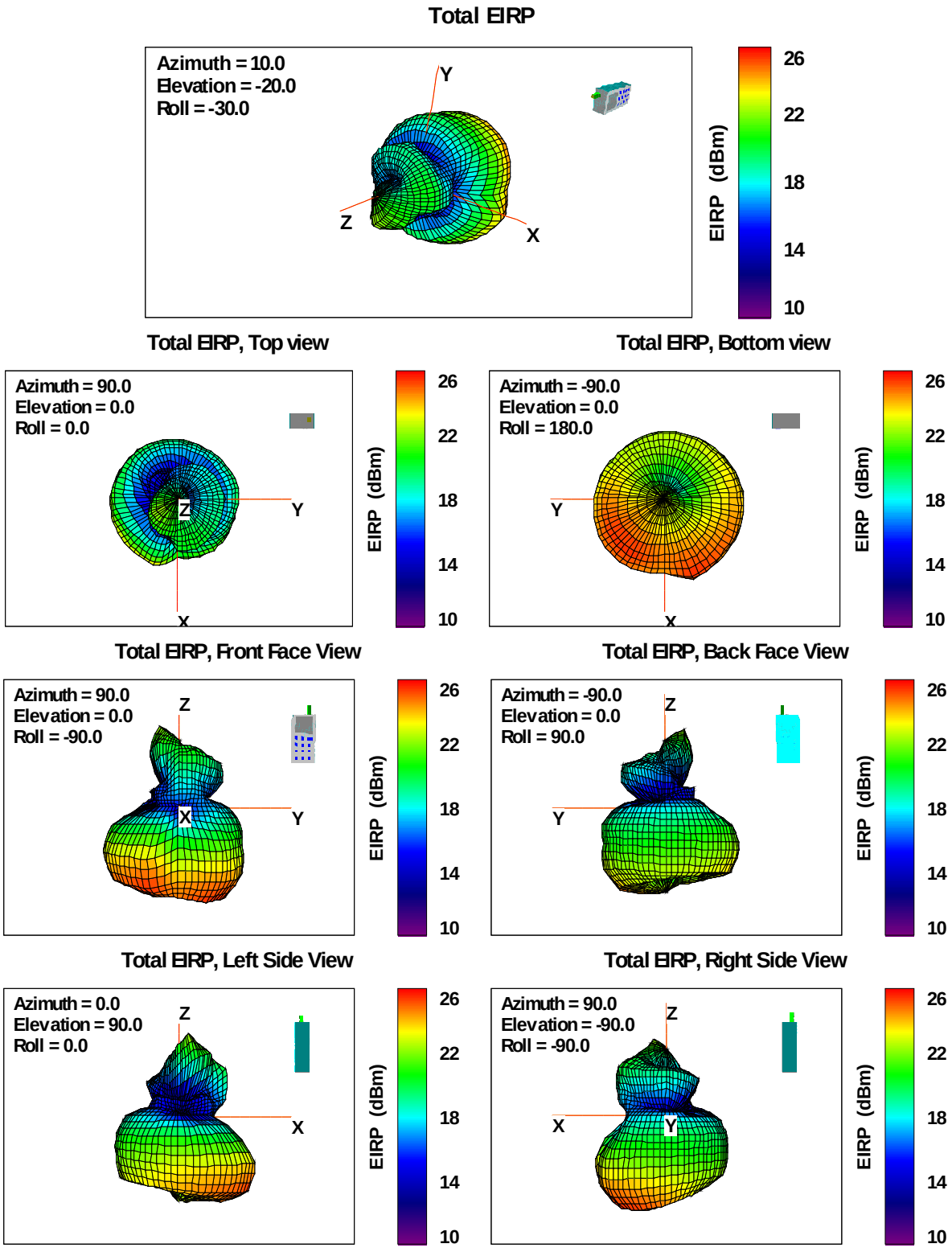


Fig. 7. Total EIRP, Free Space, middle channel, WCDMA Band V.

3.8 TIS WCDMA Band V – Free Space

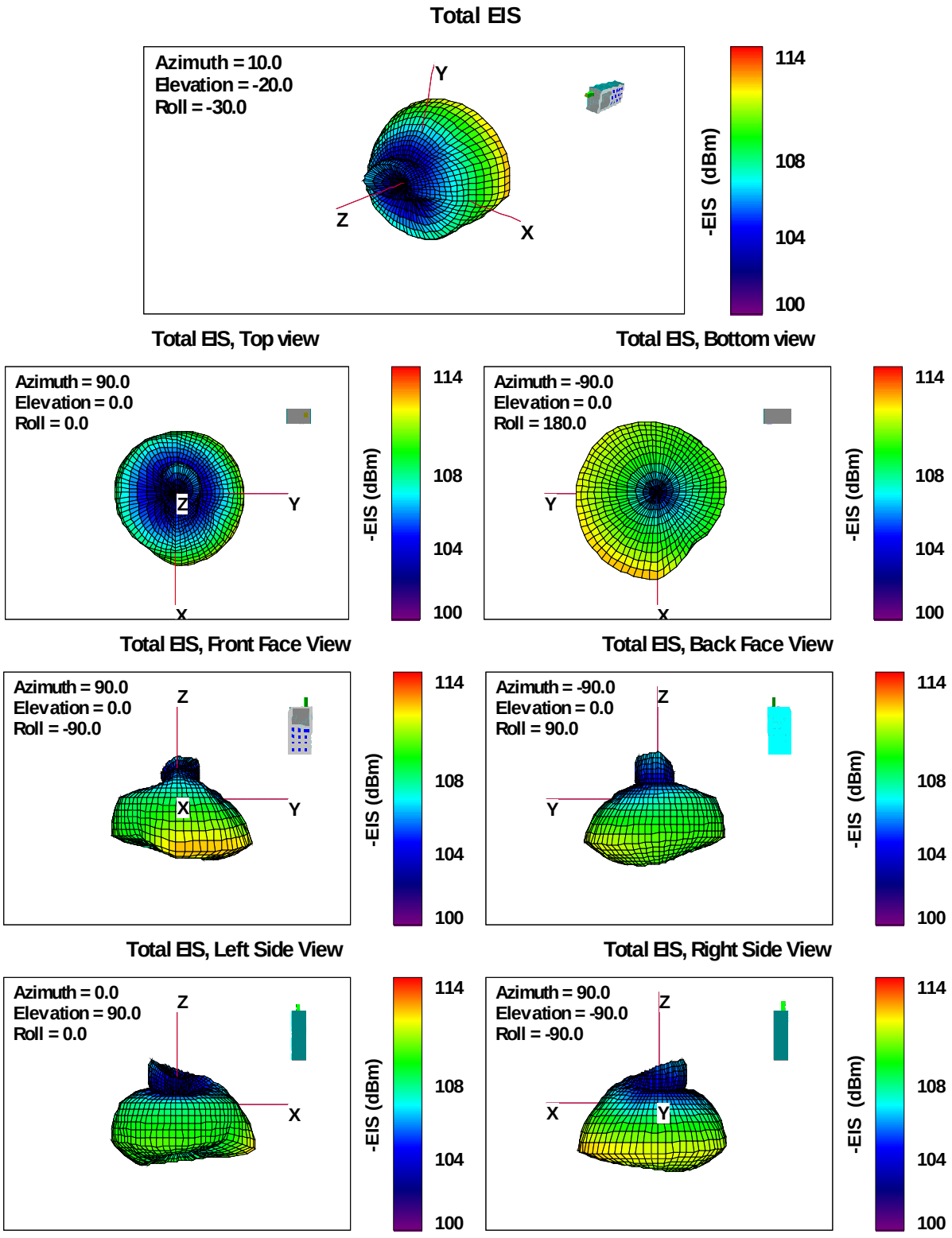


Fig. 8. Total EIS, Free Space, middle channel, WCDMA Band V.

4. RANGE REFERENCE MEASUREMENT DATA

Measurement Date:			2014-06-18						
Reference Antenna(s):			ETS Lindgren Dipole antenna 700 MHz, model 3126-700 (700 MHz Band) ETS Lindgren Dipole antenna 880 MHz, model 3126-880 (Cellular Band) ETS Lindgren Dipole antenna 1845 MHz, model 3126-1845 (PCS Band) ETS Lindgren Dipole antenna 2450 MHz, model 3126-2450 (2.4 GHz Band)						
Polarization:			Theta						
Signal Path:			Theta Polarization to Spectrum Analyzer (TRP)						
Band	**Freq. Design.**	**Freq. (MHz)**	**Cable Ref. (dBm)**	**Test Port (dBm)**	**Noise Floor (dBm)**	**Test Port - Cable (dB)**	**Test Port - Noise (dB)**	**Ref. Ant. Gain (dBi)**	**Path Loss (dB)**
3GPP Band 12	CH11-TX	699	-	-	-	46.97	-	2.05	49.02
3GPP Band 12	CH12-TX	707	-	-	-	47.49	-	2.04	49.53
3GPP Band 12	CH13-TX	716	-	-	-	47.94	-	1.98	49.92
3GPP Band 17	CH14-TX	704	-	-	-	47.30	-	2.05	49.34
3GPP Band 17	CH15-TX	710	-	-	-	47.64	-	2.02	49.66
3GPP Band 17	CH16-TX	716	-	-	-	47.94	-	1.98	49.92
3GPP Band 13	CH17- TX	776	-	-	-	48.77	-	1.42	50.20
3GPP Band 13	CH18- TX	781.5	-	-	-	48.31	-	1.37	49.69
3GPP Band 13	CH19- TX	787	-	-	-	47.98	-	1.32	49.31
3GPP Band 14	CH20- TX	788	-	-	-	47.91	-	1.32	49.23
3GPP Band 14	CH21- TX	793	-	-	-	47.67	-	1.28	48.95
3GPP Band 14	CH22- TX	798	-	-	-	47.29	-	1.24	48.53
3GPP Band 26	CH29- TX	814	-	-	-	49,61		0,96	50,56
3GPP Band 26	CH30- TX	831.5	-	-	-	48,28		1,26	49,54
3GPP Band 26	CH31- TX	849	-	-	-	47.59	-	1.46	49.05
Cellular (3GPP Band 5)	CH1-TX	824	-	-	-	48.58	-	1.15	49.73
Cellular (3GPP Band 5)	CH2-TX	836.5	-	-	-	48.04	-	1.32	49.36
Cellular (3GPP Band 5)	CH3-TX	849	-	-	-	47.59	-	1.46	49.05
PCS (3GPP Band 2)	CH4-TX	1850	-	-	-	53.01	-	1.95	54.96
PCS (3GPP Band 2)	CH5-TX	1880	-	-	-	54.11	-	2.00	56.10
PCS (3GPP Band 2)	CH6-TX	1910	-	-	-	53.52	-	2.00	55.51

Measurement Date:	2014-06-18
Reference Antenna(s):	ETS Lindgren Dipole antenna 700 MHz, model 3126-700 (700 MHz Band) ETS Lindgren Dipole antenna 880 MHz, model 3126-880 (Cellular Band) ETS Lindgren Dipole antenna 1845 MHz, model 3126-1845 (PCS Band) ETS Lindgren Dipole antenna 2450 MHz, model 3126-2450 (2.4 GHz Band)
Polarization:	Theta
Signal Path:	Theta Polarization to Spectrum Analyzer (TRP)

Band	Freq. Design.	Freq. (MHz)	Cable Ref. (dBm)	Test Port (dBm)	Noise Floor (dBm)	Test Port - Cable (dB)	Test Port - Noise (dB)	Ref. Ant. Gain (dBi)	Path Loss (dB)
3GPP Band 25	CH23-TX	1850	-	-	-	53.01	-	1.95	54.96
3GPP Band 25	CH24-TX	1882.5	-	-	-	53.95	-	2.00	55.95
3GPP Band 25	CH25-TX	1915	-	-	-	53.60	-	1.98	55.58
AWS-1 (3GPP Band 4)	CH8-TX	1710	-	-	-	51.19	-	1.55	52.74
AWS-1 (3GPP Band 4)	CH9-TX	1732.5	-	-	-	50.28	-	1.67	51.95
AWS-1 (3GPP Band 4)	CH10-TX	1755	-	-	-	49.59	-	1.80	51.39
3GPP Band 30	CH35-TX	2305	-	-	-	53,92	-	1,76	55,68
3GPP Band 30	CH36-TX	2310	-	-	-	54,04	-	1,76	55,80
3GPP Band 30	CH37-TX	2315	-	-	-	54,13	-	1,79	55,92
3GPP Band 7	CH32-TX	2500	-	-	-	56,17	-	1,99	58,16
3GPP Band 7	CH33-TX	2570	-	-	-	55,34	-	2,00	57,34
3GPP Band 7	CH34-TX	2655	-	-	-	55,78	-	1,94	57,72
3GPP Band 41	CH26-TX-RX	2496	-	-	-	56,14	-	2,00	58,15
3GPP Band 41	CH27-TX-RX	2593	-	-	-	55,06	-	2,01	57,07
3GPP Band 41	CH28-TX-RX	2690	-	-	-	56,50	-	1,98	58,48

Measurement Date:	2014-06-18
Reference Antenna(s):	ETS Lindgren Dipole antenna 700 MHz, model 3126-700 (700 MHz Band) ETS Lindgren Dipole antenna 880 MHz, model 3126-880 (Cellular Band) ETS Lindgren Dipole antenna 1845 MHz, model 3126-1845 (PCS Band) ETS Lindgren Dipole antenna 2450 MHz, model 3126-2450 (2.4 GHz Band)
Polarization:	Phi
Signal Path:	Phi Polarization to Spectrum Analyzer (TRP)

Band	Freq. Design.	Freq. (MHz)	Cable Ref. (dBm)	Test Port (dBm)	Noise Floor (dBm)	Test Port - Cable (dB)	Test Port - Noise (dB)	Ref. Ant. Gain (dBi)	Path Loss (dB)
3GPP Band 12	CH11-TX	699	-	-	-	47.81	-	2.05	49.86
3GPP Band 12	CH12-TX	707	-	-	-	48.29	-	2.04	50.33
3GPP Band 12	CH13-TX	716	-	-	-	48.71	-	1.98	50.69
3GPP Band 17	CH14-TX	704	-	-	-	48.13	-	2.05	50.17
3GPP Band 17	CH15-TX	710	-	-	-	48.35	-	2.02	50.38
3GPP Band 17	CH16-TX	716	-	-	-	48.71	-	1.98	50.69
3GPP Band 13	CH17- TX	776	-	-	-	49.67	-	1.42	51.09
3GPP Band 13	CH18- TX	781.5	-	-	-	49.13	-	1.37	50.51
3GPP Band 13	CH19- TX	787	-	-	-	48.78	-	1.32	50.10
3GPP Band 14	CH20- TX	788	-	-	-	48.72	-	1.32	50.03
3GPP Band 14	CH21- TX	793	-	-	-	48.23	-	1.28	49.51
3GPP Band 14	CH22- TX	798	-	-	-	47.84	-	1.24	49.08
3GPP Band 26	CH29- TX	814	-	-	-	49,61	-	0,96	50,56
3GPP Band 26	CH30- TX	831.5	-	-	-	48,28	-	1,26	49,54
3GPP Band 26	CH31- TX	849	-	-	-	47,51	-	1,46	48,96
Cellular (3GPP Band 5)	CH1-TX	824	-	-	-	48.60	-	1.15	49.75
Cellular (3GPP Band 5)	CH2-TX	836.5	-	-	-	48.11	-	1.32	49.43
Cellular (3GPP Band 5)	CH3-TX	849	-	-	-	47.51	-	1.46	48.96
PCS (3GPP Band 2)	CH4-TX	1850	-	-	-	52.21	-	1.95	54.16
PCS (3GPP Band 2)	CH5-TX	1880	-	-	-	54.06	-	2.00	56.06
PCS (3GPP Band 2)	CH6-TX	1910	-	-	-	52.91	-	2.00	54.90

Measurement Date:	2014-06-18
Reference Antenna(s):	ETS Lindgren Dipole antenna 700 MHz, model 3126-700 (700 MHz Band) ETS Lindgren Dipole antenna 880 MHz, model 3126-880 (Cellular Band) ETS Lindgren Dipole antenna 1845 MHz, model 3126-1845 (PCS Band) ETS Lindgren Dipole antenna 2450 MHz, model 3126-2450 (2.4 GHz Band)
Polarization:	Phi
Signal Path:	Phi Polarization to Spectrum Analyzer (TRP)

Band	Freq. Design.	Freq. (MHz)	Cable Ref. (dBm)	Test Port (dBm)	Noise Floor (dBm)	Test Port - Cable (dB)	Test Port - Noise (dB)	Ref. Ant. Gain (dBi)	Path Loss (dB)
3GPP Band 25	CH23-TX	1850	-	-	-	52.21	-	1.95	54.16
3GPP Band 25	CH24-TX	1882.5	-	-	-	54.00	-	2.00	56.00
3GPP Band 25	CH25-TX	1915	-	-	-	52.79	-	1.98	54.77
AWS-1 (3GPP Band 4)	CH8-TX	1710	-	-	-	50.25	-	1.55	51.80
AWS-1 (3GPP Band 4)	CH9-TX	1732.5	-	-	-	49.52	-	1.67	51.19
AWS-1 (3GPP Band 4)	CH10-TX	1755	-	-	-	48.91	-	1.80	50.71
3GPP Band 30	CH35-TX	2305	-	-	-	54,91	-	1,76	56,67
3GPP Band 30	CH36-TX	2310	-	-	-	54,99	-	1,76	56,75
3GPP Band 30	CH37-TX	2315	-	-	-	55,06	-	1,79	56,85
3GPP Band 7	CH32-TX	2500	-	-	-	56,72	-	1,99	58,71
3GPP Band 7	CH33-TX	2570	-	-	-	55,41	-	2,00	57,41
3GPP Band 7	CH34-TX	2655	-	-	-	55,74	-	1,94	57,68
3GPP Band 41	CH26-TX-RX	2496	-	-	-	56,81	-	2,00	58,81
3GPP Band 41	CH27-TX-RX	2593	-	-	-	55,20	-	2,01	57,21
3GPP Band 41	CH28-TX-RX	2690	-	-	-	56,30	-	1,98	58,29

Measurement Date:	2014-06-18
Reference Antenna(s):	ETS Lindgren Dipole antenna 700 MHz, model 3126-700 (700 MHz Band) ETS Lindgren Dipole antenna 880 MHz, model 3126-880 (Cellular Band) ETS Lindgren Dipole antenna 1575 MHz, model 3126-1575 (GPS Band) ETS Lindgren Dipole antenna 1845 MHz, model 3126-1845 (PCS Band) ETS Lindgren Dipole antenna 2145 MHz, model 3126-2145 (AWS-1 Band) ETS Lindgren Dipole antenna 2450 MHz, model 3126-2450 (2.4GHz Band)
Polarization:	Theta
Signal Path:	Theta Polarization to Communication Tester (TIS)

Band	**Freq. Design.**	**Freq. (MHz)**	**Cable Ref. (dBm)**	**Test Port (dBm)**	**Noise Floor (dBm)**	**Test Port - Cable (dB)**	**Test Port - Noise (dB)**	**Ref. Ant. Gain (dBi)**	**Path Loss (dB)**
3GPP Band 12	CH11-RX	728	-	-	-	48.64	-	1.88	50.52
3GPP Band 12	CH12-RX	737	-	-	-	49.06	-	1.80	50.86
3GPP Band 12	CH13-RX	746	-	-	-	49.22	-	1.71	50.93
3GPP Band 17	CH14-RX	734	-	-	-	48.97	-	1.82	50.80
3GPP Band 17	CH15-RX	740	-	-	-	49.13	-	1.77	50.90
3GPP Band 17	CH16-RX	746	-	-	-	49.22	-	1.71	50.93
3GPP Band 13	CH17-RX	746	-	-	-	49.22	-	1.71	50.93
3GPP Band 13	CH18-RX	751.5	-	-	-	49.31	-	1.67	50.98
3GPP Band 13	CH19-RX	757	-	-	-	49.31	-	1.62	50.93
3GPP Band 14	CH20-RX	758	-	-	-	49.31	-	1.61	50.92
3GPP Band 14	CH21-RX	763	-	-	-	49.27	-	1.55	50.82
3GPP Band 14	CH22-RX	768	-	-	-	49.29	-	1.50	50.79
3GPP Band 26	CH29- RX	859	-	-	-	46,44	-	1,52	47,96
3GPP Band 26	CH30- RX	876.5	-	-	-	46,11	-	1,56	47,68
3GPP Band 26	CH31- RX	894	-	-	-	46.30	-	1.55	47.85
3GPP Band 5	CH1-RX	869	-	-	-	47.24	-	1.55	48.79
3GPP Band 5	CH2-RX	881.5	-	-	-	46.62	-	1.57	48.20
3GPP Band 5	CH3-RX	894	-	-	-	46.30	-	1.55	47.85
Cellular	CH1-RX	869	-	-	-	47.00	-	1.55	48.55
Cellular	CH2-RX	881.5	-	-	-	46.67	-	1.57	48.25
Cellular	CH3-RX	894	-	-	-	46.12	-	1.55	47.68
GPS	CH7-RX	1575.42	-	-	-	50.04	-	2.06	52.10
3GPP Band 2	CH4-RX	1930	-	-	-	54.07	-	1.96	56.03
3GPP Band 2	CH5-RX	1960	-	-	-	53.75	-	1.88	55.63
3GPP Band 2	CH6-RX	1990	-	-	-	54.35	-	1.76	56.11
PCS	CH4-RX	1930	-	-	-	53.77	-	1.96	55.73
PCS	CH5-RX	1960	-	-	-	53.49	-	1.88	55.37
PCS	CH6-RX	1990	-	-	-	54.13	-	1.76	55.89

Measurement Date:	2014-06-18
Reference Antenna(s):	ETS Lindgren Dipole antenna 700 MHz, model 3126-700 (700 MHz Band) ETS Lindgren Dipole antenna 880 MHz, model 3126-880 (Cellular Band) ETS Lindgren Dipole antenna 1575 MHz, model 3126-1575 (GPS Band) ETS Lindgren Dipole antenna 1845 MHz, model 3126-1845 (PCS Band) ETS Lindgren Dipole antenna 2145 MHz, model 3126-2145 (AWS-1 Band) ETS Lindgren Dipole antenna 2450 MHz, model 3126-2450 (2.4GHz Band)
Polarization:	Theta
Signal Path:	Theta Polarization to Communication Tester (TIS)

Band	**Freq. Design.**	**Freq. (MHz)**	**Cable Ref. (dBm)**	**Test Port (dBm)**	**Noise Floor (dBm)**	**Test Port - Cable (dB)**	**Test Port - Noise (dB)**	**Ref. Ant. Gain (dBi)**	**Path Loss (dB)**
3GPP Band 25	CH23-RX	1930	-	-	-	54.07	-	1.96	56.03
3GPP Band 25	CH24-RX	1962.5	-	-	-	53.76	-	1.88	55.63
3GPP Band 25	CH25-RX	1995	-	-	-	54.47	-	1.75	56.22
3GPP Band 4	CH8-RX	2110	-	-	-	52.46	-	1.84	54.30
3GPP Band 4	CH9-RX	2132.5	-	-	-	52.11	-	1.86	53.97
3GPP Band 4	CH10-RX	2155	-	-	-	52.02	-	1.89	53.91
AWS-1	CH8-RX	2110	-	-	-	52.28	-	1.84	54.12
AWS-1	CH9-RX	2132.5	-	-	-	51.93	-	1.86	53.80
AWS-1	CH10-RX	2155	-	-	-	51.86	-	1.89	53.75
3GPP Band 30	CH35-RX	2350	-	-	-	55,24	-	1,90	57,14
3GPP Band 30	CH36-RX	2355	-	-	-	55,44	-	1,93	57,38
3GPP Band 30	CH37-RX	2360	-	-	-	55,73	-	1,92	57,65
3GPP Band 7	CH32-RX	2535	-	-	-	55,57	-	2,00	57,57
3GPP Band 7	CH33-RX	2620	-	-	-	55,18	-	1,96	57,15
3GPP Band 7	CH34-RX	2690	-	-	-	56,50	-	1,98	58,49
3GPP Band 41	CH26-TX-RX	2496	-	-	-	56,12	-	2,00	58,12
3GPP Band 41	CH27-TX-RX	2593	-	-	-	54,94	-	2,01	56,95
3GPP Band 41	CH28-TX-RX	2690	-	-	-	56,50	-	1,98	58,49

Measurement Date:	2014-06-18
Reference Antenna(s):	ETS Lindgren Dipole antenna 700 MHz, model 3126-700 (700 MHz Band) ETS Lindgren Dipole antenna 880 MHz, model 3126-880 (Cellular Band) ETS Lindgren Dipole antenna 1575 MHz, model 3126-1575 (GPS Band) ETS Lindgren Dipole antenna 1845 MHz, model 3126-1845 (PCS Band) ETS Lindgren Dipole antenna 2145 MHz, model 3126-2145 (AWS-1 Band) ETS Lindgren Dipole antenna 2450 MHz, model 3126-2450 (2.4GHz Band)
Polarization:	Phi
Signal Path:	Phi Polarization to Communication Tester (TIS)

Band	**Freq. Design.**	**Freq. (MHz)**	**Cable Ref. (dBm)**	**Test Port (dBm)**	**Noise Floor (dBm)**	**Test Port - Cable (dB)**	**Test Port - Noise (dB)**	**Ref. Ant. Gain (dBi)**	**Path Loss (dB)**
3GPP Band 12	CH11-RX	728	-	-	-	49.57	-	1.88	51.45
3GPP Band 12	CH12-RX	737	-	-	-	49.90	-	1.80	51.70
3GPP Band 12	CH13-RX	746	-	-	-	50.25	-	1.71	51.96
3GPP Band 17	CH14-RX	734	-	-	-	49.85	-	1.82	51.68
3GPP Band 17	CH15-RX	740	-	-	-	50.04	-	1.77	51.81
3GPP Band 17	CH16-RX	746	-	-	-	50.25	-	1.71	51.96
3GPP Band 13	CH17-RX	746	-	-	-	50.25	-	1.71	51.96
3GPP Band 13	CH18-RX	751.5	-	-	-	50.35	-	1.67	52.02
3GPP Band 13	CH19-RX	757	-	-	-	50.39	-	1.62	52.01
3GPP Band 14	CH20-RX	758	-	-	-	50.36	-	1.61	51.97
3GPP Band 14	CH21-RX	763	-	-	-	50.35	-	1.55	51.90
3GPP Band 14	CH22-RX	768	-	-	-	50.28	-	1.50	51.77
3GPP Band 26	CH29- RX	859	-	-	-	47,44	-	1,52	48,96
3GPP Band 26	CH30- RX	876.5	-	-	-	47,11	-	1,56	48,68
3GPP Band 26	CH31- RX	894	-	-	-	46,81	-	1,55	48,36
3GPP Band 5	CH1-RX	869	-	-	-	47.47	-	1.55	49.02
3GPP Band 5	CH2-RX	881.5	-	-	-	46.97	-	1.57	48.54
3GPP Band 5	CH3-RX	894	-	-	-	46.81	-	1.55	48.36
Cellular	CH1-RX	869	-	-	-	47.23	-	1.55	48.78
Cellular	CH2-RX	881.5	-	-	-	46.98	-	1.57	48.55
Cellular	CH3-RX	894	-	-	-	46.98	-	1.55	48.54
GPS	CH7-RX	1575.42	-	-	-	50.37	-	2.06	52.43
3GPP Band 2	CH4-RX	1930	-	-	-	54.44	-	1.96	56.40
3GPP Band 2	CH5-RX	1960	-	-	-	53.63	-	1.88	55.52
3GPP Band 2	CH6-RX	1990	-	-	-	53.05	-	1.76	54.81
PCS	CH4-RX	1930	-	-	-	54.44	-	1.96	56.40
PCS	CH5-RX	1960	-	-	-	53.48	-	1.88	55.36
PCS	CH6-RX	1990	-	-	-	52.92	-	1.75	54.67

Measurement Date:	2014-06-18
Reference Antenna(s):	ETS Lindgren Dipole antenna 700 MHz, model 3126-700 (700 MHz Band) ETS Lindgren Dipole antenna 880 MHz, model 3126-880 (Cellular Band) ETS Lindgren Dipole antenna 1575 MHz, model 3126-1575 (GPS Band) ETS Lindgren Dipole antenna 1845 MHz, model 3126-1845 (PCS Band) ETS Lindgren Dipole antenna 2145 MHz, model 3126-2145 (AWS-1 Band) ETS Lindgren Dipole antenna 2450 MHz, model 3126-2450 (2.4GHz Band)
Polarization:	Phi
Signal Path:	Phi Polarization to Communication Tester (TIS)

Band	**Freq. Design.**	**Freq. (MHz)**	**Cable Ref. (dBm)**	**Test Port (dBm)**	**Noise Floor (dBm)**	**Test Port - Cable (dB)**	**Test Port - Noise (dB)**	**Ref. Ant. Gain (dBi)**	**Path Loss (dB)**
3GPP Band 25	CH23-RX	1930	-	-	-	54.29	-	1.96	56.24
3GPP Band 25	CH24-RX	1962.5	-	-	-	53.35	-	1.88	55.24
3GPP Band 25	CH25-RX	1995	-	-	-	52.75	-	1.76	54.51
3GPP Band 4	CH8-RX	2110	-	-	-	52.33	-	1.84	54.18
3GPP Band 4	CH9-RX	2132.5	-	-	-	52.47	-	1.86	54.34
3GPP Band 4	CH10-RX	2155	-	-	-	52.78	-	1.89	54.66
AWS-1	CH8-RX	2110	-	-	-	52.18	-	1.84	54.03
AWS-1	CH9-RX	2132.5	-	-	-	52.35	-	1.86	54.21
AWS-1	CH10-RX	2155	-	-	-	52.65	-	1.89	54.54
3GPP Band 30	CH35-RX	2350	-	-	-	55,24	-	1,90	57,14
3GPP Band 30	CH36-RX	2355	-	-	-	55,48	-	1,93	57,41
3GPP Band 30	CH37-RX	2360	-	-	-	55,76	-	1,92	57,68
3GPP Band 7	CH32-RX	2535	-	-	-	55,47	-	2,00	57,47
3GPP Band 7	CH33-RX	2620	-	-	-	55,19	-	1,96	57,16
3GPP Band 7	CH34-RX	2690	-	-	-	56,19	-	1,98	58,17
3GPP Band 41	CH26-TX-RX	2496	-	-	-	56,62	-	2,00	58,63
3GPP Band 41	CH27-TX-RX	2593	-	-	-	54,84	-	2,01	56,85
3GPP Band 41	CH28-TX-RX	2690	-	-	-	56,19	-	1,98	58,17

Appendix B – Photographs

5. PHOTOGRAPHS

Equipment under test:

- **EUT front view:**

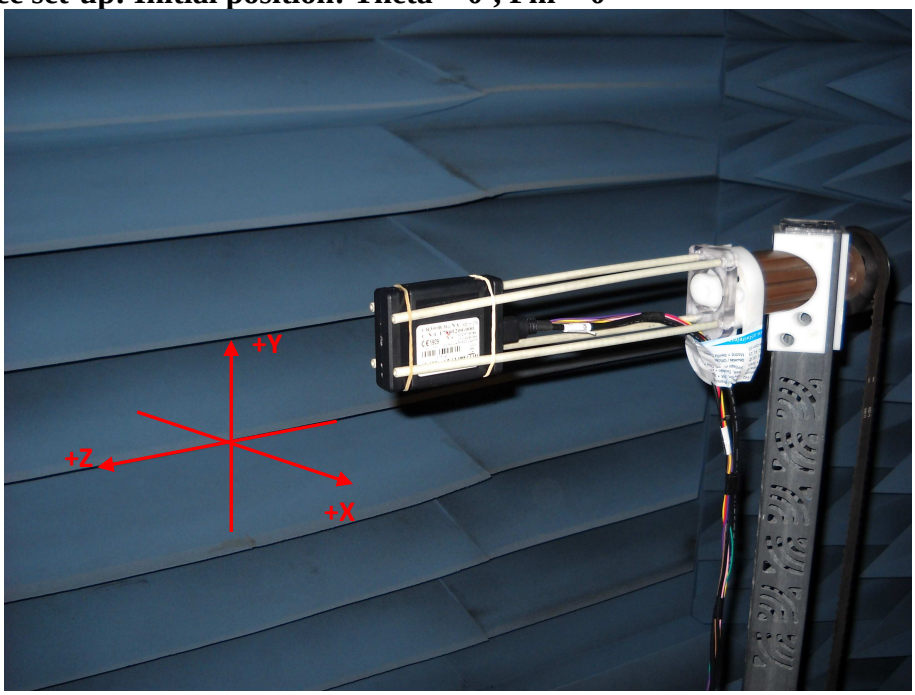
Fig 9. EUT front view.

- **EUT back view:**

Fig 10. EUT back view.

Test set:

- **Free Space set-up: Initial position: Theta = 0º, Phi = 0º**



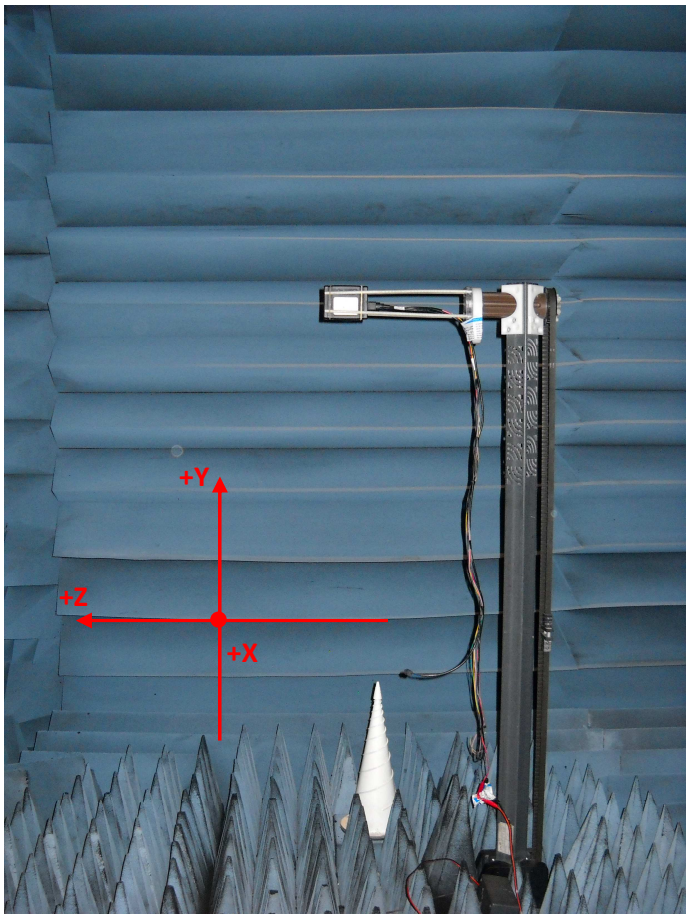


Fig 11. Free Space configuration set-up view.