FCC REPORT

Report Reference No.....:: CHTEW2112024003R1 Report Verification:

Project No..... SHT2111139401EW

FCC ID.....: **B32T650M**

Applicant's name....: **VeriFone Inc**

Suite 200 1400 W Stanford Ranch Rd Rocklin CA 95765 Address....:

Test item description:: **Point of Sale Terminal**

Trade Mark: Verifone

Model/Type reference..... T650m

Listed Model(s): T650m-2

FCC CFR Title 47 Part 2 Standard::

FCC CFR Title 47 Part 90

Date of receipt of test sample..... Dec.06, 2021

Dec.07, 2021- Dec.28 2021 Date of testing.....

Date of issue..... Dec.29 2021

Result.....: Pass

Compiled by

Silvia Li File administrators Silvia Li (position+printedname+signature)...:

Supervised by

(position+printedname+signature)....: Project Engineer Aaron Fang

Approved by

(position+printedname+signature)....: Manager Hans Hu

Testing Laboratory Name: Shenzhen Huatongwei International Inspection Co., Ltd.

Address....: 1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road,

Tianliao, Gongming, Shenzhen, China

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The test report merely correspond to the test sample.

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1. TEST STANDARDS AND REPORT VERSION

1.1. Applicable Standards

The tests were performed according to following standards:

FCC Rules Part 2: FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

FCC Rules Part 90: PRIVATE LAND MOBILE RADIO SERVICES.

ANSI C63.26: 2015: American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

KDB 971168 D01 Power Meas License Digital Systems v03: MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS

1.2. Report version information

Revision No.	Date of issue	Description			
N/A	2021-07-08	Original			
R1	2021-12-28	The 4G main antenna and diversity antenna are updated, and the wiring method of the diversity antenna is changed from the original built-in Layout to an external coaxial cable. Update test radiated power and radiated spurious, update hardware version, based on the report CHTEW21070020(2021-07-08)			

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2. Test Description

Test Item	Section in CFR 47	Result	Test Engineer
ERP	Part 22.913(a) Part 90.635(b)	Pass	Pan Xie
Radiated Spurious Emissions	Part 2.1053 Part 90.691	Pass	Pan Xie

Note: The measurement uncertainty is not included in the test result.

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3. **SUMMARY**

3.1. Client Information

Applicant:	VeriFone Inc
Address:	Suite 200 1400 W Stanford Ranch Rd Rocklin CA 95765
Manufacturer:	Verifone Systems (China) Inc.
Address:	Rm 318, south of Bld C18, Startup Headquarters Base, North of Fuyuan Road, Wuqing Development Area, Tianjin, China, 301700
Factory:	Cal-Comp Electronics (Thailand) Public Co., Ltd.
Address:	No. 138, Village No. 4, Phetchakasem Road, Sa Phang Subdistrict, Khao Yoi District, 76140, Phetchaburi Province, Thailand

3.2. Product Description

Name of EUT:	Point of Sale Terminal
Trade Mark:	Verifone
Model No.:	T650m
Listed Model(s):	T650m-2
SIM Information:	Support Two SIM Card
Battery Information:	DC 3.7V, 2800mAh
Adapter information:	Model:S010CNU0500200 Input: AC100-240V, 50/60Hz, 400mA Output: 5.0Vdc, 2000mA
Hardware version:	DVT3
Software version:	1A.0.0
4G	
Operation Band:	☑ FDD Band 26
Transmit frequency:	814.7 MHz – 823.3 MHz
Receive frequency:	859.7 MHz – 868.3 MHz
Channel bandwidth:	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz
Power Class:	Class 3
Modulation type:	QPSK, 16QAM
Antenna type	FPC Antenna
Antenna Gain	-1.0dBi

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3.3. Operation state

> Test frequency list

TDD Band 26 Test Frequency Banwidth[MHz] N _{UL} Frequency of Uplink [MHz] N _{DL} 1.4 26997 814.7 8697 3 26705 815.5 8705 Low Range 5 26715 816.5 8715 10 - - - 15 26765 821.5	Frequency of Downlink [MHz] 859.7 860.5 861.5
Low Range 3 26705 815.5 8705 5 26715 816.5 8715 10 - - -	860.5
Low Range 5 26715 816.5 8715 10	
10	861.5
15 26765 921.5	-
15 26763 821.5	
Mid Range 1.4/3/5/10 26740 819 8740	864
1.4 26783 823.3 8783	868.3
3 26775 822.5 8775	867.5
High Range 5 26765 821.5 8765	866.5
10	-

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3.4. EUT operation mode

For RF test items

The EUT has been tested under typical operating condition. Testing was performed by configuring EUT to maximum output power status.

Toot Itomo	Dond	Bandwidth (MHz)				Modulation		RB#			
Test Items	Band	1.4	3	5	10	15	QPSK	16QAM	1	Half	Full
Conducted Output Power	26	0	0	0	0	0	0	0	0	0	0
Peak-to-Average Ratio	26	0	0	0	0	0	0	0	0	-	0
99% Occupied Bandwidth & 26 dB Bandwidth	26	0	0	0	0	0	0	0	-	-	0
Band Edge	26	0	0	0	0	0	0	0	0	-	0
Conducted Spurious Emission	26	0	0	0	0	0	0	0	0	-	-
Frequency Stability	26	0	0	0	0	0	0	0	-	-	0
ERP and EIRP	26	0	0	0	0	0	0	0	0	-	-
Radiated Spurious Emission	26	0	0	0	0	0	0	0	0	-	-
Remark	1. The mark " o"means that this configuration is chosenfor testing 2. The mark "-"means that this bandwidth is not test. 3. The device is investigatedfrom 30MHz to10 times offundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.										

The Test EUT support two SIM card(SIM1,SIM2),so all the tests are performed at each SIM card (SIM1,SIM2) mode, the datum recorded is the worst case for all the mode at SIM1 Card mode.

3.5. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

supplied by the manufacturer

0	- sup	piiea	by	tne	lab

0	1	Manufacturer:	/
		Model No.:	/
0 /	/	Manufacturer:	/
		Model No.:	/

3.6. Modifications

No modifications were implemented to meet testing criteria.

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4. TEST ENVIRONMENT

4.1. Testing Laboratory Information

Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd.				
Laboratory Location	1/F, Bldg 3, Hongfa Hi-tech Industrial Park, Genyu Road, Tianliao, Gongming, Shenzhen, China				
Connect information:	Tel: 86-755-26715499 E-mail: cs@szhtw.com.cn http://www.szhtw.com.cn				
Qualifications	Туре	Accreditation Number			
Qualifications	FCC	762235			

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4.2. Equipments Used during the Test

Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
•	Signal and spectrum Analyzer	R&S	HTWE0242	FSV40	100048	2021/9/13	2022/9/12
•	Signal & Spectrum Analyzer	R&S	HTWE0262	FSW26	103440	2021/9/13	2022/9/12
•	Spectrum Analyzer	Agilent	HTWE0286	N9020A	MY50510187	2021/9/13	2022/9/12
•	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2021/9/13	2022/9/12
•	Test software	Tonscend	N/A	JS1120	N/A	N/A	N/A

•	Radiated Spu	urious Emission					
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
•	Semi-Anechoic Chamber	Albatross projects	HTWE0122	SAC-3m-01	N/A	2018/09/27	2022/09/26
•	Spectrum Analyzer	R&S	HTWE0098	FSP40	100597	2021/9/13	2022/9/12
•	Loop Antenna	R&S	HTWE0170	HFH2-Z2	100020	2021/04/06	2022/04/05
•	Broadband Horn Antenna	SCHWARZBECK	HTWE0103	BBHA9170	BBHA9170472	2020/4/27	2023/4/27
•	Ultra-Broadband Antenna	SCHWARZBECK	HTWE0123	VULB9163	538	2021/04/06	2022/04/05
•	Horn Antenna	SCHWARZBECK	HTWE0126	9120D	1011	2020/04/01	2023/03/31
•	Pre-amplifier	CD	HTWE0071	PAP-0102	12004	2021/11/5	2022/11/4
•	Broadband Preamplifier	SCHWARZBECK	HTWE0201	BBV 9718	9718-248	2021/03/05	2022/03/04
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-01	6m 18GHz S Serisa	N/A	2021/02/26	2022/02/25
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-02	6m 3GHz RG Serisa	N/A	2021/02/26	2022/02/25
•	RF Connection Cable	HUBER+SUHNER	HTWE0119-05	6m 3GHz RG Serisa	N/A	2021/02/26	2022/02/25
•	RF Connection Cable	HUBER+SUHNER	HTWE0120-04	6m 3GHz RG Serisa	N/A	2021/02/26	2022/02/25
•	RF Connection Cable	HUBER+SUHNER	HTWE0121-01	6m 18GHz S Serisa	N/A	2021/02/26	2022/02/25
•	EMI Test Software	Audix	N/A	E3	N/A	N/A	N/A

•	Auxiliary Equi	pment					
Used	Test Equipment	Manufacturer	Equipment No.	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
•	Radio communication tester	R&S	HTWE0287	CMW500	137688-Lv	2021/9/13	2022/9/12
•	High pass filter	Wainwright	HTWE0297	WHKX3.0/18G-10SS	38	2021/05/14	2022/05/13
0	Band Stop filter		HTW0039	N/A	N/A	2021/01/27	2022/01/26

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4.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

	VN=Nominal Voltage	DC 3.70V
Voltage	VL=Lower Voltage	DC 3.60V
	VH=Higher Voltage	DC 4.20V
Tomporoturo	TN=Normal Temperature	25 °C
Temperature	Extreme Temperature	From −30° to + 50° centigrade
Humidity	30~60 %	
Air Pressure	950-1050 hPa	

4.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01"Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1"and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongweilaboratory is reported:

Test Items	Measurement Uncertainty	Notes
Transmitter power conducted	0.51 dB	(1)
Transmitter power Radiated	2.66dB for <1GHz 3.44dB for >1GHz	(1)
Conducted spurious emissions 9kHz~40GHz	0.51 dB	(1)
Radiated spurious emissions	2.66dB for <1GHz 3.44dB for >1GHz	(1)
Occupied Bandwidth	15Hz for <1GHz 70Hz for >1GHz	(1)
Frequency error	15Hz for <1GHz 70Hz for >1GHz	(1)

⁽¹⁾ This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

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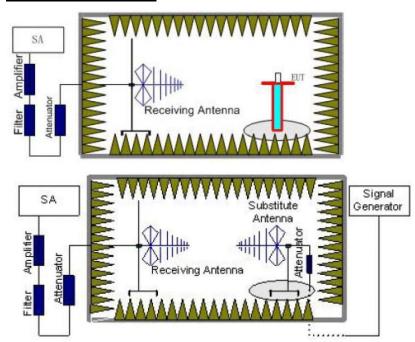
5. TEST CONDITIONS AND RESULTS

5.1. ERP

LIMIT

LTE Band 26: 100W(50.00dBm) ERP

TEST CONFIGURATION



TEST PROCEDURE

- 1. Place the EUT in the center of the turntable.
 - a) For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table at a nominal height of 80 cm above the reference ground plane
 - b) For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table at a nominal height of 1.5 m above the ground plane.
- 2. Unless the EUT uses an integral antenna, the EUT shall be terminated with a non-radiating transmitter load. In cases where the EUT uses an adjustable antenna, the antenna shall be adjusted through typical positions and lengths to maximize emissions levels.
- 3. The EUT shall be tested while operating on the frequency per manufacturer specification. Set the transmitter to operate in continuous transmit mode.
- 4. Receiver or Spectrum set as follow:

Below 1GHz, RBW=100kHz, VBW=300kHz, Detector=Peak, Sweep time=Auto

Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peck, Sweep time=Auto

- 5. Each emission under consideration shall be evaluated:
 - a) Raise and lower the measurement antenna from 1 m to 4 m, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
 - b) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
 - c) Return the turntable to the azimuth where the highest emission amplitude level was observed.
 - d) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.

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- e) Record the measured emission amplitude level and frequency
- 6. Repeat step 5 for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
- Set-up the substitution measurement with the reference point of the substitution antenna located as near
 as possible to where the center of the EUT radiating element was located during the initial EUT
 measurement.
- 8. Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
- 9. Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.
- 10. For each emission that was detected and measured in the initial test
 - a) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
 - b) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step 5 and step 6.
 - c) Record the output power level of the signal generator when equivalence is achieved in step b).
- 11. Repeat step 8 through step 10 with the measurement antenna oriented in the opposite polarization.
- 12. Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

Pe = Ps(dBm) - cable loss (dB) + antenna gain (dBd)

where

Pe = equivalent emission power in dBm

Ps = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

13. Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from:

gain (dBd) = gain (dBi) - 2.15 dB.

If necessary, the antenna gain can be calculated from calibrated antenna factor information

14. Provide the complete measurement results as a part of the test report.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

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		LTE Band 2	6-1.4MHz		
Modulation	Channel	ERP	(dBm)	Limit (dPm)	Result
iviodulation	Channel	Vertical	Horizontal	Limit (dBm)	Result
	Low	21.10	18.21		
QPSK	Mid	21.00	19.15		PASS
	High	20.52	18.14	4F0 00	
	Low	21.01	18.27	<50.00	
16QAM	Mid	20.77	19.29		PASS
	High	20.52	18.12		

			00.01411		
		LTE Band	26-3MHz		
Modulation	Channel	ERP	(dBm)	Limit (dDm)	Result
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result
	Low	21.01	18.31		
QPSK	Mid	21.01	19.17		PASS
	High	20.54	18.17	₄ E0 00	
	Low	21.01	18.20	<50.00	
16QAM	Mid	20.58	19.12		PASS
	High	20.35	18.15		

		LTE Band	26-5MHz			
Modulation	Channel	ERP	(dBm)	Limit (dPm)	Result	
Modulation	Channel	Vertical	Horizontal	Limit (dBm)	Result	
	Low	21.01	18.23			
QPSK	Mid	20.68	19.17		PASS	
	High	20.55	18.38	-E0 00		
	Low	21.02	18.42	<50.00		
16QAM	Mid	20.70	19.15		PASS	
	High	20.41	18.14			

		LTE Band 2	26-10MHz		
Modulation	Channel	ERP	(dBm)	Limit (dBm)	Result
Modulation	Chamer	Vertical	Horizontal	Lilliit (UBIII)	Kesuit
QPSK	Mid	21.00	19.21	۶ <u>۶</u> 0,00	PASS
16QAM	Mid	21.00	19.22	<50.00	PASS

		LTE Band 2	26-15MHz		
Modulation	Channel	ERP	(dBm)	Limit (dBm)	Result
iviodulation	Channel	Vertical	Horizontal	Limit (dbin)	Resuit
QPSK	Low	21.01	18.10	-E0 00	PASS
16QAM	Low	21.03	18.24	<50.00	PASS

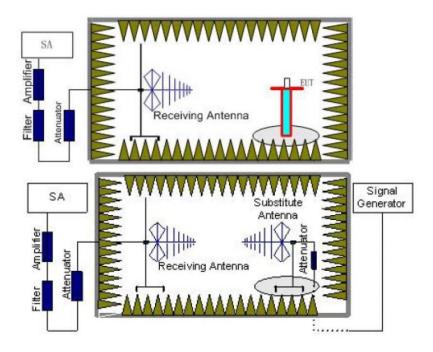
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5.2. Radiated Spurious Emission

LIMIT

- (1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log₁₀(f/6.1) decibels or 50 + 10 Log₁₀(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.
- (2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log₁₀(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

TEST CONFIGURATION



TEST PROCEDURE

- 1. Place the EUT in the center of the turntable.
 - a) For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table at a nominal height of 80 cm above the reference ground plane
 - b) For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table at a nominal height of 1.5 m above the ground plane.
- 2. Unless the EUT uses an integral antenna, the EUT shall be terminated with a non-radiating transmitter load. In cases where the EUT uses an adjustable antenna, the antenna shall be adjusted through typical positions and lengths to maximize emissions levels.
- 3. The EUT shall be tested while operating on the frequency per manufacturer specification. Set the transmitter to operate in continuous transmit mode.
- 4. Receiver or Spectrum set as follow:

Below 1GHz, RBW=100kHz, VBW=300kHz, Detector=Peak, Sweep time=Auto

Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peck, Sweep time=Auto

- 5. Each emission under consideration shall be evaluated:
 - a) Raise and lower the measurement antenna from 1 m to 4 m, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.

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b) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.

- c) Return the turntable to the azimuth where the highest emission amplitude level was observed.
- d) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
- e) Record the measured emission amplitude level and frequency
- Repeat step 5 for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
- Set-up the substitution measurement with the reference point of the substitution antenna located as near
 as possible to where the center of the EUT radiating element was located during the initial EUT
 measurement.
- 8. Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
- 9. Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.
- 10. For each emission that was detected and measured in the initial test
 - a) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
 - b) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step 5 and step 6.
 - Record the output power level of the signal generator when equivalence is achieved in step b).
- 11. Repeat step 8 through step 10 with the measurement antenna oriented in the opposite polarization.
- 12. Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

Pe = Ps(dBm) - cable loss (dB) + antenna gain (dBd)

where

Pe = equivalent emission power in dBm

Ps = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

13. Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from:

gain (dBd) = gain (dBi) - 2.15 dB.

If necessary, the antenna gain can be calculated from calibrated antenna factor information

14. Provide the complete measurement results as a part of the test report.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

Note: only show the worse case for QPSK modulation.

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824.5MHz					Polari	zation: Hor	izontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	39.75	-94.72	27.74	6.93	0.00	-60.05	-13.00	-47.05	Peak
2	437.37	-93.68	26.03	9.32	0.00	-58.33	-13.00	-45.33	Peak
3	1663.80	-61.81	36.21	4.56	37.16	-58.20	-13.00	-45.20	Peak
4	2443.62	-59.56	39.58	5.59	37.32	-51.71	-13.00	-38.71	Peak
5	4086.46	-69.42	41.69	7.46	36.27	-56.54	-13.00	-43.54	Peak
6	8002.06	-74.34	48.12	10.91	32.84	-48.15	-13.00	-35.15	Peak
004 = 144									
824.5MHz					Polari	zation: Ver	tical		
824.5MHz Mark	Frequency	Reading	Antenna	Cable	Polari Preamp		tical Limit	0ver	Remark
	Frequency MHz	Reading dBm	Antenna dB	Cable dB				Over limit	Remark
					Preamp	Level	Limit		Remark Peak
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 89.87	dBm -94.61	dB 25.83	dB 7.42	Preamp dB 0.00	Level dBm -61.36	Limit dBm -13.00	limit -48.36	Peak
Mark 1 2	MHz 89.87 577.43	dBm -94.61 -92.40	dB 25.83 26.55	dB 7.42 9.85	Preamp dB 0.00 0.00	Level dBm -61.36 -56.00	Limit dBm -13.00 -13.00	limit -48.36 -43.00	Peak Peak
1 2 3	MHz 89.87 577.43 1663.80	dBm -94.61 -92.40 -60.39	dB 25.83 26.55 36.15	dB 7.42 9.85 4.56	Preamp dB 0.00 0.00 37.16	Level dBm -61.36 -56.00 -56.84	Limit dBm -13.00 -13.00	limit -48.36 -43.00 -43.84	Peak Peak Peak

819MHz					Polar	rization: Ho	orizontal		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
	MHz	dBm	dB	dB	dB	dBm	dBm	limit	
1	39.75	-94.03	27.74	6.93	0.00	-59.36	-13.00	-46.36	Peak
2	464.31	-93.21	25.70	9.44	0.00	-58.07	-13.00	-45.07	Peak
3	1663.80	-63.36	36.21	4.56	37.16	-59.75	-13.00	-46.75	Peak
4	2443.62	-58.43	39.58	5.59	37.32	-50.58	-13.00	-37.58	Peak
5	3672.11	-68.65	42.32	6.98	37.12	-56.47	-13.00	-43.47	Peak
6	9042.04	-73.67	48.65	11.53	31.24	-44.73	-13.00	-31.73	Peak
819MHz					Polar	rization: Ve	ertical		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
	MHz	dBm	dB	dB	dB	dBm	dBm	limit	
1	101.64	-93.85	25.53	7.53	0.00	-60.79	-13.00	-47.79	Peak
2	579.46	-94.54	26.64	9.86	0.00	-58.04	-13.00	-45.04	Peak
3	1663.80	-59.97	36.15	4.56	37.16	-56.42	-13.00	-43.42	Peak
4	2328.25	-64.06	40.16	5.45	37.39	-55.84	-13.00	-42.84	Peak
_	3598.09	-69.28	42.59	6.91	37.01	-56.79	-13.00	-43.79	Peak
5									

816.5MHz					Polari	ization: Hor	rizontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	39.75	-94.41	27.74	6.93	0.00	-59.74	-13.00	-46.74	Peak
2	410.54	-92.94	25.71	9.22	0.00	-58.01	-13.00	-45.01	Peak
3	1663.80	-63.57	36.21	4.56	37.16	-59.96	-13.00	-46.96	Peak
4	2443.62	-61.13	39.58	5.59	37.32	-53.28	-13.00	-40.28	Peak
5	4223.95	-70.71	42.36	7.69	35.91	-56.57	-13.00	-43.57	Peak
6	10036.73	-75.50	50.50	12.38	31.41	-44.03	-13.00	-31.03	Peak
816.5MHz					Polari	ization: Ver	tical		
816.5MHz	Frequency	Reading	Antenna	Cable	Polari		tical Limit	0ver	Remark
	Frequency MHz	Reading dBm	Antenna dB	Cable dB				Over limit	Remark
					Preamp	Level	Limit		Remark Peak
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 90.82	dBm -94.82	dB 25.88	dB 7.43	Preamp dB 0.00	Level dBm -61.51	Limit dBm -13.00	limit -48.51	Peak
Mark 1 2	MHz 90.82 437.37	dBm -94.82 -93.25	dB 25.88 25.58	dB 7.43 9.32	Preamp dB 0.00	Level dBm -61.51 -58.35	Limit dBm -13.00 -13.00	limit -48.51 -45.35	Peak Peak
Mark 1 2 3	MHz 90.82 437.37 1663.80	dBm -94.82 -93.25 -60.33	dB 25.88 25.58 36.15	dB 7.43 9.32 4.56	Preamp dB 0.00 0.00 37.16	Level dBm -61.51 -58.35 -56.78	Limit dBm -13.00 -13.00	limit -48.51 -45.35 -43.78	Peak Peak Peak

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19MHz					Polariz	zation: Hori	izontal		
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	38.78	-93.99	27.60	6.92	0.00	-59.47	-13.00	-46.47	Peak
2	423.74	-92.67	25.99	9.26	0.00	-57.42	-13.00	-44.42	Peak
3	1663.80	-63.71	36.21	4.56	37.16	-60.10	-13.00	-47.10	Peak
4	2449.85	-62.02	39.55	5.60	37.31	-54.18	-13.00	-41.18	Peak
5	4652.95	-70.07	43.51	8.17	34.90	-53.29	-13.00	-40.29	Peak
6	10191.20	-75.20	50.90	12.41	31.74	-43.63	-13.00	-30.63	Peak
319MHz					Polari	zation: Vert	ical		
J I JIVII IZ					I Olam	<u>- a</u>	licai		
Mark	Frequency	Reading	Antenna	Cable	Preamp	Level	Limit	0ver	Remark
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 95.74	dBm -93.60	dB 25.81	dB 7.48	Preamp dB 0.00	Level dBm -60.31	Limit dBm -13.00	limit -47.31	Peak
Mark	MHz	dBm	dB	dB	Preamp dB	Level dBm	Limit dBm	limit	
Mark 1	MHz 95.74	dBm -93.60	dB 25.81	dB 7.48	Preamp dB 0.00	Level dBm -60.31	Limit dBm -13.00	limit -47.31	Peak
Mark 1 2	MHz 95.74 434.30	dBm -93.60 -93.39	dB 25.81 25.54	dB 7.48 9.30	Preamp dB 0.00	Level dBm -60.31 -58.55	Limit dBm -13.00 -13.00	limit -47.31 -45.55	Peak Peak
Mark 1 2 3	MHz 95.74 434.30 1663.80	dBm -93.60 -93.39 -60.80	dB 25.81 25.54 36.15	dB 7.48 9.30 4.56	Preamp dB 0.00 0.00 37.16	Level dBm -60.31 -58.55 -57.25	Limit dBm -13.00 -13.00	limit -47.31 -45.55 -44.25	Peak Peak Peak

821.5MHz					Polarization: Horizontal				
Mark	Frequency MHz	Reading dBm	Antenna dB	Cable dB	Preamp dB	Level dBm	Limit dBm	Over limit	Remark
1	36.92	-93.71	27.32	6.89	0.00	-59.50	-13.00	-46.50	Peak
2	432.78	-92.49	26.02	9.30	0.00	-57.17	-13.00	-44.17	Peak
3	1663.80	-64.58	36.21	4.56	37.16	-60.97	-13.00	-47.97	Peak
4	2468.63	-63.28	39.44	5.62	37.29	-55.51	-13.00	-42.51	Peak
5	4996.69	-71.95	44.35	8.81	34.81	-53.60	-13.00	-40.60	Peak
6	10888.51	-76.01	52.64	12.52	32.37	-43.22	-13.00	-30.22	Peak
821.5MHz	Polarization: Vertical								
Mark	Frequency	Reading	Antenna dB	Cable	Preamp dB	Level dBm	Limit	Over	Remark
1	MHz 96.76	dBm -94.74	25.79	dB 7.48	0.00	-61.47	dBm -13.00	limit -48.47	Peak
2	454.62	-94.74	25.79	9.39	0.00	-58.06	-13.00	-45.06	Peak
3	1663.80	-60.84	36.15	4.56	37.16	-57.29	-13.00	-44.29	Peak
4	2328.25	-64.59	40.16	5.45	37.16	-56.37	-13.00	-44.29	Peak
5	4996.69	-68.15	44.50	8.81	34.81	-49.65	-13.00	-45.57	Peak
6	8770.01	-74.00	49.27	11.95	30.39	-43.17	-13.00	-30.03	Peak

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