Produkte Products



Prüfberick Test Report No		lr.:	17027314 0	001			1 von 19 1 of 19
Auftraggeber: Client:			Blue Ocean Innov Rm.1813, Fo Tan Hong Kong	/ation Limited Industrial Centre, 2	6-28 Au	Pui Wan	ı Street, Fotan,
Gegenstand of Test item:	der Prü	fung:	JTECH PAGER				
Bezeichnung: Identification:	:		450163, 450168, 450180	Serien-N r Serial No.		n.a.	
Wareneingan Receipt No.:	gs-Nr.:		163091840	Eingangs Date of re		2012-0)4-18
Zustand des I Condition of t			es bei Anlieferung: ery:	Test samples re not damaged.	eceived a	are suffic	cient for testing a
Prüfort: Testing locatio	n:	F1, E Park FCC		New Meterial Port, Shenzhen 518057, F 752051			ience & Industry
Prüfgrundlag Test specificat		(ANS ICES (CAN	Part 15 Subpart B il C63.4: 2003) i-003 Issue 4 Febru I/CSA-CEI/IEC CISF Gen Issue 3 Decen	PR 22-02)			
Prüfergebnis: Test Result:	:			ntspricht oben gena e test specification(s,		rüfgrund	
Prüflaborator Testing Labora		ΤÜ\	/ Rheinland (Shenzh	nen) Co., Ltd.			
geprüft/ tested	•	Lin/ Project I	B	kontrolliert/ reviewe 2012-09-/ 〜 Wir	Wi	echnical C	(ou Certifier
Datum Date Sonstiges/ Of	Nam Nam	e/Stellung e/Position	Unterschrift Signature	Datum 1	lame/Stell Name/Posit	ung	Unterschrift Signature
Abkürzungen:	F(ail) NIA			Abbreviations	P(ass) F(ail) NIA NIT		



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TEST SUMMARY

5.1.1 CONDUCTED EMISSION

RESULT: Passed

5.2.1 RADIATED EMISSION

RESULT: Passed



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4. 4.1 4.2 4.3 4.4 4.5 5. 5.1 5.1. 5.2 5.2.	TEST SET-UP AND OPERATION MODES 9 PRINCIPLE OF CONFIGURATION SELECTION 9 TEST OPERATION AND TEST SOFTWARE 9 SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT 9 COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE 9 TEST SETUP DIAGRAM 10 TEST RESULTS E M I S S I O N 12 EMISSION IN THE FREQUENCY RANGE UP TO 30 MHz 12 EMISSION IN THE FREQUENCY RANGE ABOVE 30 MHz 13 1 Radiated Emission 13



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1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test Result

2. Test Sites

2.1 Test Facilities

Shenzhen Accurate Technology Co., Ltd.

F1, Bldg. A, Changyuan New Meterial Port, Keyuan Rd., Science & Industry Park Nanshan District, Shenzhen 518057, P.R. China

FCC Registration No.: 752051

Test site Industry Canada No.: 5077A

The tests at the test site have been conducted under the supervision of a TÜV engineer.



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2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Туре	S/N	Calibrated until				
Conducted Emission	Conducted Emission							
Test Receiver	Rohde & Schwarz	ESCS30	100307	2013-01-07				
Artificial Mains Network	Schwarzbeck	NLSK8126	8126431	2013-01-07				
Radiated Emission								
Spectrum Analyzer	Agilent	E7405A	MY45115511	2013-01-07				
Test Receiver	Rohde & Schwarz	ESCS30	100307	2013-01-07				
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	2013-01-07				
Loop Antenna	Schwarzbeck	FMZB1516	1516131	2013-01-07				
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	2013-01-07				
50 Coaxial Switch	Anritsu Corp	MP59B	6200506474	2013-01-07				
Pre-Amplifier	Rohde & Schwarz	CBLU11835 40-01	3791	2013-01-07				

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.



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2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements are ± 3 dB.

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix1 of this report and delivered to the applicant. A copy has been retained in the TUV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The Shenzhen Accurate Technology Co., Ltd. located at F1, Bldg. A, Changyuan New Meterial Port, Keyuan Rd., Science & Industry Park Nanshan District, Shenzhen 518057, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.



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3. General Product Information

3.1 Product Function and Intended Use

The EUTs are JTECH pager, which are UHF recevers work at 457.6MHz. The EUTs are used to call customers.

All models are identical in circuit design, PCB layout and components employed except the differences indicated in below table.

For more information refer to the Instruction Manual & Circuit Diagram.

Model	Frequeny	Audio	Color	Software version	EEPROM version		
450180	457.6MHz	Programable Voice	Black	V0.00.005.4CE1	450180-436.26		
450163	457.6MHz	Masked Voice	Blue	V0.00.005.4CE1	000.001 457.6MHz		
450168	457.6MHz	Programable Voice	Blue	V0.00.005.4CE1	450180-436.26		

3.2 Ratings and System Details

Table 2: Rating of EUT

Kind of Equipment	JTECH PAGER
Type Designation	450163, 450168, 450180
FCC ID	VU3-COMMPASS457

Table 3: Technical Specification of EUT

Technical Specification	Value
Operating Frequency band	457.6MHz
Operation Voltage	DC2.4V (via built-in rechargable battery)
Modulation	FM
Antenna Type	Internal Antenna, Non-User Replaceable



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3.3 Independent Operation Modes

The basic operation modes are:

- A. Receiving
- B. Charging (via external specified charger)
- C. Stand by
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Circuit Diagram- Construction Drawing- PCB Layout- Bill of Material

- User's Manual - Label



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4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. Due to models' differences indicated in clause 3.1, full test was applied on models 450163 and 450180.

4.3 Special Accessories and Auxiliary Equipment

Item Description	Model No.	Manufacturer
AC/DC Adapter	TR36A-13 03A03	CINCON Electronics Co., Ltd.
Battery Plate	l	Ocean Springs Metal Manufacture Limited.

Note: the adapter is only for testing, not marketed with EUT.

4.4 Countermeasures to achieve EMC Compliance

The test sample, which has been tested, contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

(Test diagrams removed? Pls. still put in. Also it will be much helpful to Rene is you can draw a system diagram, i.e. adaptor + charging docking + EUT.)

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4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

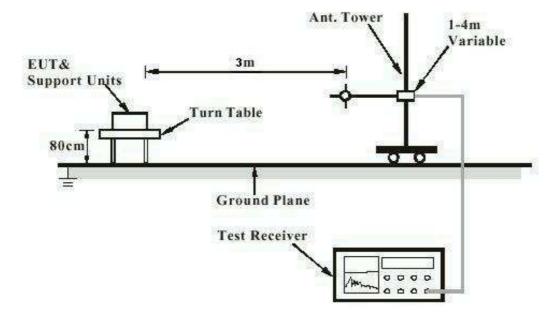
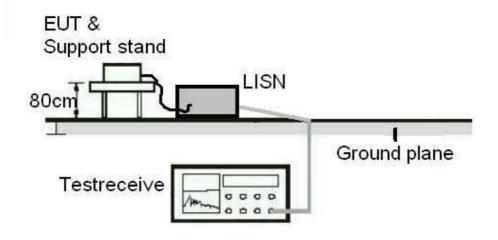


Diagram of Measurement Equipment Configuration for Mains Conduction Measurement





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5. Test Results EMISSION

5.1 Emission in the Frequency Range up to 30 MHz

5.1.1 Conducted Emission

RESULT: Passed

Date of testing : 2012-05-22

Test specification : FCC Part 15 Per Section 15.107(a)

Clause 5.3 of ICES-003

RSS-Gen 7.2.4

Frequency range : 0.15 – 30MHz

Classification : Class B

Test procedure : ANSI C63.4: 2003

CAN/CSA-CEI/IEC CISPR 22-02

Table 4 of RSS-GEN

Deviations from : None

standard test procedure

Kind of test site : Shielded room

Test setup

Input Voltage : AC120V 60Hz to AC/DC Adapter

Operation mode : B

Artificial hand : Not applied Earthing : Not connected

Test data refer to Appendix 1.



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5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Radiated Emission

RESULT: Passed

Date of testing 2012-05-22

Test standard FCC Part 15 Per Section 15.109(a)

None

Clause 5.5 of ICES-003

RSS-Gen 7.1.4

Frequency range 30 - 6000MHz

Classification Class B

Test procedure ANSI C63.4: 2003

CAN/CSA-CEI/IEC CISPR 22-02

RSS-Gen Table 5

Deviation from standard:

test procedure

Kind of test site 3m Semi-Anechoic Chamber

Test setup

Input Voltage AC120V 60Hz to AC/DC Adapter

Operation mode A, B

Not connected Earthing

Note:

For IC requirement, mode A (receiving mode) was tested according to RSS-Gen Issue 3, while mode B (charging mode) was tested according to ICES-003 Issue 4.

Test data refer to Appendix 1.



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6. Photographs of the Test Set-Up

Photograph 1: Set-up for Conducted Emission, model 450163



Photograph 2: Set-up for Radiated Emission, below 1GHz, model 450163, mode A





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Photograph 3: Set-up for Radiated Emission, above 1GHz, model 450163, mode A



Photograph 4: Set-up for Radiated Emission, below 1GHz, model 450163, mode B





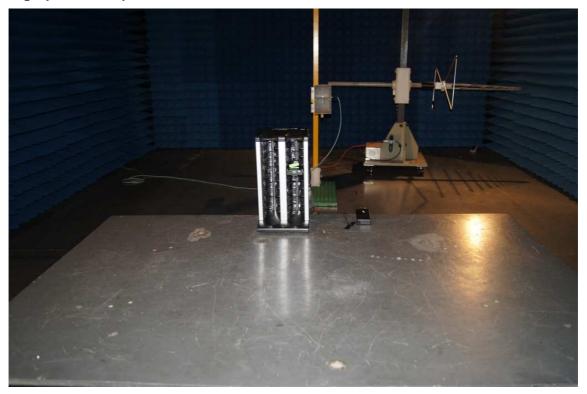


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Photograph 5: Set-up for Radiated Emission, above 1GHz, model 450163, mode B



Photograph 6: Set-up for Conducted Emission, model 450180

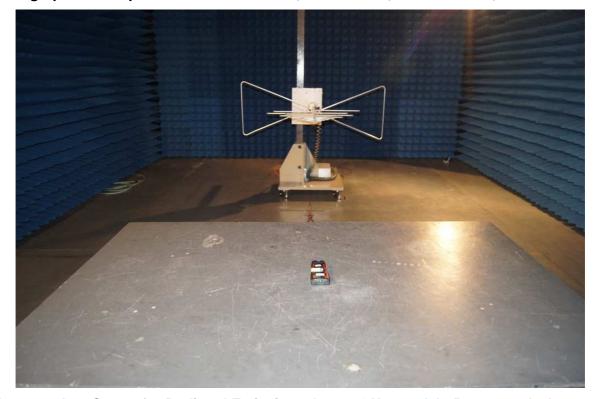




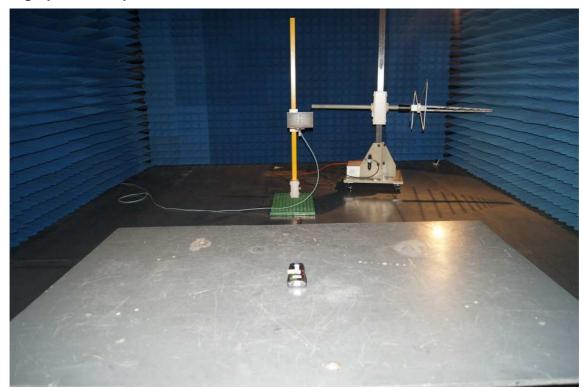
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Photograph 7: Set-up for Radiated Emission, below 1GHz, model 450180, mode A



Photograph 8: Set-up for Radiated Emission, above 1GHz, model 450180, mode A



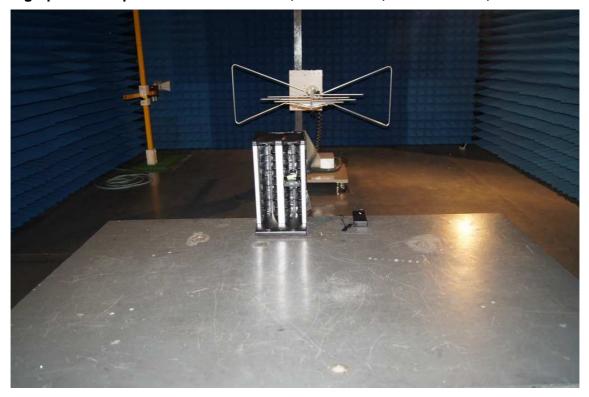


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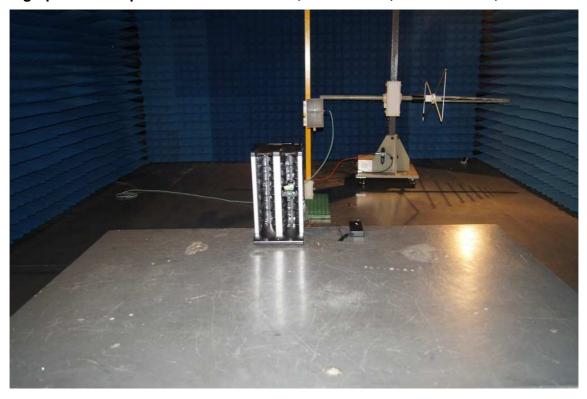
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Photograph 9: Set-up for Radiated Emission, below 1GHz, model 450180, mode B



Photograph 10: Set-up for Radiated Emission, above 1GHz, model 450180, mode B





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- 6GHz)Figure of Radiated emissions, model 450180, mode B, Vertical polarity (1GHz –	20
	21
6GHz)	∠ I



Figure 1: Test figure of conducted emissions, model 450163, mode B, line live

ACCURATE TECHNOLOGY CO., LTD

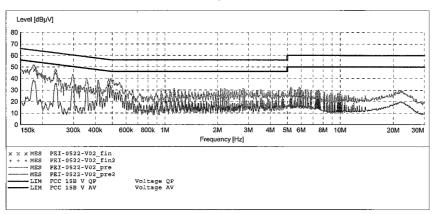
CONDUCTED EMISSION STANDARD FCC PART 15 B

Commpass Pager M/N:450163 Blue Ocean Innovation Manufacturer:

Manufacturer: Blue Ocean innovation Operating Condition: B
Test Site: 1#Shielding Room PEI
Test Specification: L 120V/60Hz
Comment: Mains port
Start of Test: 5/22/2012 / 11:13:34AM

SCAN TABLE: "V 150K-30MHz fin"
Short Description: SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas. IF Transducer
Frequency Frequency Width
150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "PET-0522-V02 fin"

5/22/2012 11:	16AM						
Frequency	Level			-	Detector	Line	PE
MHz	dΒμV	dВ	dΒμV	đВ			
0.180236	47.90	11.2	65	16.6	QP	L1	GND
0.236447	45.20	11.4	62	17.0	QP	L1	GND
1 130707	29 10	11 8	56	26 9	OP	T.7	GND

MEASUREMENT RESULT: "PEI-0522-V02_fin2"

5/22/2012 11:	16AM						
Frequency	Level			_	Detector	Line	PE
MHz	dΒμV	dB	dΒμV	dB			
0.475482	33.90	12.0	46	12.5	AV	L1	GND
1.130707	25.80	11.8	46	20.2	AV	L1	GND
5.833187	24.10	11.4	50	25.9	AV	T ₂ 1	GND



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Figure 2: Test figure of conducted emissions, model 450163, mode B, line neutral

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CONDUCTED EMISSION STANDARD FCC PART 15 B

Commpass Pager M/N:450163

Blue Ocean Innovation

Manufacturer:
Operating Condition:
Test Site:
Operator:
PEI
Test Specification:
Comment:
Start of Test:
Setue Ocean innovation
B
#Shielding Room
PEI
Test Specification:
N 120V/60Hz
Mains port
5/22/2012 / 11:01:21AM

SCAN TABLE: "V 150K-30MHz fin"
Short Description:
Start Stop Step Detector Meas.
Frequency Frequency Width
150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s

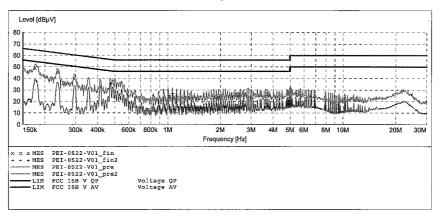
Detector Meas. IF

Transducer

Bandw. 9 kHz

NSLK8126 2008

Average



MEASUREMENT RESULT: "PEI-0522-V01_fin"

5/22/2012 11	.:04AM						
Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
MHz	dBuV	dB	dBuV	ďB			
	ш.		шр				
0.175970	49.30	11.1	65	15.4	OP	N	GND
					-		
0.237393	46.00	11.4	62	16.2	QP	N	GND
0.293329	40.20	11.6	60	20.2	OP	N	GND

MEASUREMENT RESULT: "PEI-0522-V01 fin2"

5/22/2012 11 Frequency MHz	L:04AM Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.473588	35.10	12.0	47	11.4	AV	N	GND
1.064987	26.60	11.8	46	19.4	AV	N	GND
6.925571	26.40	11.4	50	23.6	AV	N	GND



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Figure 3: Test figure of conducted emissions, model 450180, mode B, line live

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CONDUCTED EMISSION STANDARD FCC PART 15 B

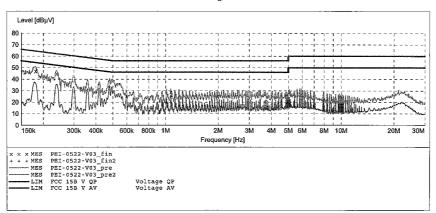
Commpass Pager M/N:450180 Blue Ocean Innovation

Manufacturer: Blue Ocean innovation Operating Condition: B
Test Site: l#Shielding Room PEI
Test Specification: L 120V/60Hz
Comment: Mains port
Start of Test: 5/22/2012 / 11:20:58AM

SCAN TABLE: "V 150K-30MHz fin"
Short Description: SUB_STD_VTERM2 1.70
Start Stop Step Detector Meas. IF
Frequency Frequency Width
150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz

Transducer Bandw. 9 kHz NSLK8126 2008

Äverage



MEASUREMENT RESULT: "PEI-0522-V03_fin"

/22/2012 11:	23AM						
Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
MHz	dBµV	dB	dΒμV	dB			
			•				
0.180957	47.10	11.2	64	17.3	QP	L1	GND
0.239296	44.80	11.4	62	17.3	QP	L1	GND
1.073524	28.90	11.8	56	27.1	QP	L1	GND
	Frequency MHz 0.180957 0.239296	MHz dBμV 0.180957 47.10 0.239296 44.80	Frequency MHz dBuV dB 0.180957 47.10 11.2 0.239296 44.80 11.4	Frequency MHz dBµV dB dBµV 0.180957 47.10 11.2 64 0.239296 44.80 11.4 62	Frequency MHz dBpV dB Limit Margin dBpV dB D.180957 47.10 11.2 64 17.3 0.239296 44.80 11.4 62 17.3	Frequency MHz dBpV dB Limit Margin Detector dBpV dB dBuV dB Detector 0.180957 47.10 11.2 64 17.3 QP 0.239296 44.80 11.4 62 17.3 QP	Frequency MHz dBuV dB Limit Margin Detector Line dBuV dB dBuV dB Detector Line 0.180957 47.10 11.2 64 17.3 QP L1 0.239296 44.80 11.4 62 17.3 QP L1

MEASUREMENT RESULT: "PEI-0522-V03_fin2"

1:23AM						
Level	Transd	Limit	Margin	Detector	Line	PE
dΒμV	dB	dBµV	dв			
33.40	12.0	46	13.0	AV	Ll	GND
25.10	11.8	46	20.9	AV	L1	GND
27.10	11.4	50	22.9	AV	L1	GND
	Level dBµV 33.40 25.10	Level Transd dBμV dB 33.40 12.0 25.10 11.8	Level Transd Limit dBµV dB dBµV 33.40 12.0 46 25.10 11.8 46	Level Transd Limit Margin dBuV dB dBuV dB 33.40 12.0 46 13.0 25.10 11.8 46 20.9	Level Transd Limit Margin Detector dBµV dB dBµV dB 33.40 12.0 46 13.0 AV 25.10 11.8 46 20.9 AV	Level Transd dBμV Limit dBμV Margin dB Detector Line 33.40 12.0 46 13.0 AV L1 25.10 11.8 46 20.9 AV L1



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Figure 4: Test figure of conducted emissions, model 450180, mode B, line neutral

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CONDUCTED EMISSION STANDARD FCC PART 15 B

Commpass Pager M/N:450180 Blue Ocean Innovation

Manufacturer:
Operating Condition:
B
Test Site:
Operator:
Operator:
PEI
Test Specification:
Comment:
Start of Test:

Stude Ocean innovation
B
#Shielding Room
PEI
Test Specification:
N 120V/60Hz
Mains port
5/22/2012 / 11:27:01AM

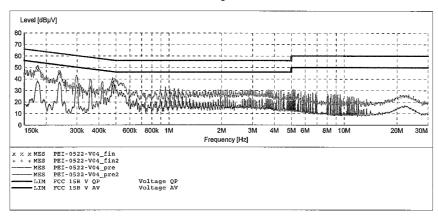
Transducer

SCAN TABLE: "V 150K-30MHz Sin"

Short Description:
Start Stop Step Detector Meas. IF
Frequency Frequency Width Time Bandw.
150.0 kHz 30.0 MHz 0.8 % Quasipeak 1.0 s 9 kHz

Bandw.
9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "PEI-0522-V04_fin"

5/22/2012 11:	28AM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.178803	48.20	11.1	65	16.3	QP	N	GND
0.237393	45.10	11.4	62	17.1	QP	N	GND
0 470204	27 10	12 0	E 6	10.2	OB	'NT	CINTO

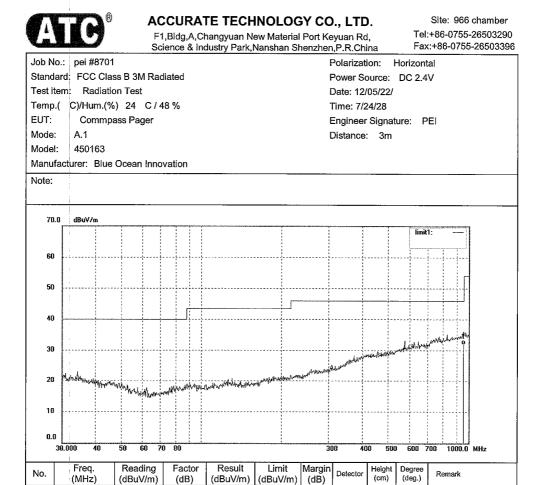
MEASUREMENT RESULT: "PEI-0522-V04_fin2"

5/22/2012	L1:28AM						
Frequency	/ Level	Transd	Limit	Margin	Detector	Line	PE
MH:	z dBµV	đВ	dBµV	dB			
			•				
0.479294	34.10	12.0	46	12.3	AV	N	GND
0.492876	33.80	12.0	46	12.3	AV	N	GND
1.073524	1 25.90	11.8	46	20.1	AV	N	GND



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Figure 5: Test figure of Radiated emissions, model 450163, mode A, Horizontal polarity (30MHz - 1GHz)



Limit

46.00

(dBuV/m) (dB)

Margin

-14.03

Detector

Height

Factor

(dB)

29.63

(dBuV/m)

31.97

(dBuV/m)

955.3509

No.

Remark



Figure 6: Test figure of Radiated emissions, model 450163, mode A, Vertical polarity (30MHz - 1GHz)

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Distance: 3m

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Standard: FCC Class B 3M Radiated Power Source: DC 2.4V Test item: Radiation Test Date: 12/05/22/

Temp.(C)/Hum.(%) 24 C / 48 % Time: 7/32/48 Commpass Pager Engineer Signature: PEI

Mode: Model: 450163

Manufacturer: Blue Ocean Innovation

Note:

EUT:

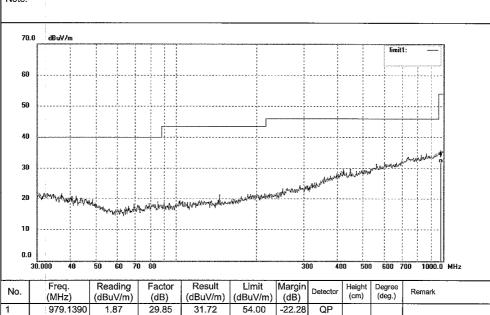




Figure 7: Test figure of Radiated emissions, model 450163, mode A, Horizontal polarity (1GHz - 6GHz)



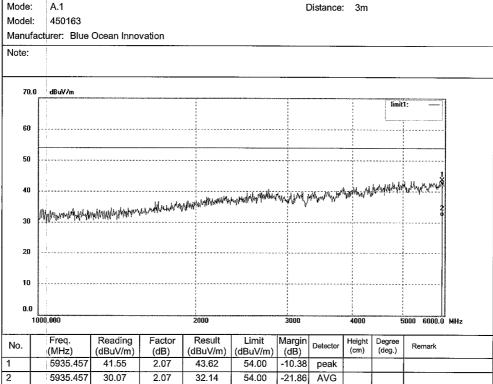
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R.China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

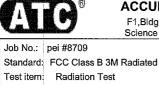
Polarization: Horizontal Standard: FCC Class B 3M Radiated Power Source: DC 2.4V Test item: Radiation Test Date: 12/05/22/ Temp.(C)/Hum.(%) 24 C / 48 % Time: 8/34/43

EUT: Commpass Pager Engineer Signature: PEI



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Figure 8: Test figure of Radiated emissions, model 450163, mode A, Vertical polarity (1GHz - 6GHz)



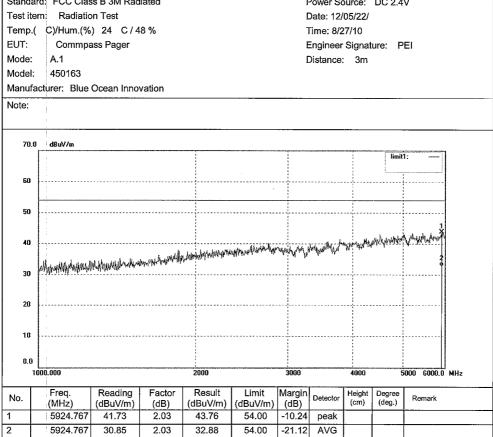
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Tel:+86-0755-26503290 Fax:+86-0755-26503396

Site: 966 chamber

Power Source: DC 2.4V Date: 12/05/22/



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Figure 9: Test figure of Radiated emissions, model 450180, mode A, Horizontal polarity (30MHz - 1GHz)



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Distance: 3m

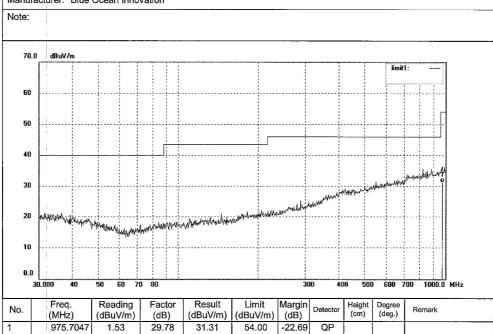
Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal Standard: FCC Class B 3M Radiated Power Source: DC 2.4V Test item: Radiation Test Date: 12/05/22/

Temp.(C)/Hum.(%) 24 C / 48 % Time: 7/48/33 EUT: Commpass Pager Engineer Signature: PEI

Mode: Model: 450180

Manufacturer: Blue Ocean Innovation





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Figure 10: Test figure of Radiated emissions, model 450180, mode A, Vertical polarity (30MHz - 1GHz)

EUT:

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Distance: 3m

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical Standard: FCC Class B 3M Radiated Power Source: DC 2.4V

Test item: Radiation Test Date: 12/05/22/ Temp.(C)/Hum.(%) 24 C / 48 % Time: 7/40/27 Commpass Pager Engineer Signature: PEI

Mode: Model: 450180

Manufacturer: Blue Ocean Innovation

Note: 70.0 dBuV/m 60 50 40 30 20 10 0.0 600

Reading Result Margin Factor Limit Frea No. Detector Remark (MHz) (dBuV/m) (dBuV/m) (dB) (dB) (dBuV/m) 979.1390 29.85 31.36 1.51 54.00 -22.64



Figure 11: Test figure of Radiated emissions, model 450180, mode A, Horizontal polarity (1GHz - 6GHz)



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal Standard: FCC Class B 3M Radiated Power Source: DC 2.4V Test item: Radiation Test Date: 12/05/22/ Temp.(C)/Hum.(%) 24 C / 48 % Time: 8/41/52 EUT: Commpass Pager Engineer Signature: PEI

Mode: Distance: 3m Model: 450180 Manufacturer: Blue Ocean Innovation Note: dBuV/m 70.0 60 layere proposed percept about about and have such taken the forest according to a confinite perfect of the propose and all the forest and the forest and the forest according to a confinite perfect of the forest and the forest according to a confinite perfect of the forest according to the fore 10 3000 5000 6000.0 MHz Result Reading Factor Limit Margin Frea Height Degree (deg.) Remark (dBuV/m) (dBuV/m) (dB) (MHz) (dB) (dBuV/m) 5914.097 41.63 1.99 43.62 54.00 -10.38 peak

5914.097 30.95 1.99 32.94 54.00 -21.06 AVG



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Figure 12: Test figure of Radiated emissions, model 450180, mode A, Vertical polarity (1GHz – 6GHz)

Site: 966 chamber ACCURATE TECHNOLOGY CO., LTD. Tel:+86-0755-26503290 F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Fax:+86-0755-26503396 Science & Industry Park, Nanshan Shenzhen, P.R. China pei #8712 Polarization: Vertical Standard: FCC Class B 3M Radiated Power Source: DC 2.4V Test item: Radiation Test Date: 12/05/22/ Temp.(C)/Hum.(%) 24 C / 48 % Time: 8/48/40 EUT: Commpass Pager Engineer Signature: PEI Mode: A.1 Distance: 3m Model: 450180 Manufacturer: Blue Ocean Innovation Note: 70.0 dBuV/m 60 3000 5000 6000,0 MHz Reading Freq. Result Margin Factor Limit Degree (deg.) Detector Remark (MHz) (dB) (dBuV/m) (dBuV/m) (dBuV/m) (dB) 5903.446 41.30 43.26 1.96 54.00 -10.74 peak

5903.446

30.38

1.96

32.34

54.00

-21.66

AVG

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Figure 13: Test figure of Radiated emissions, model 450163, mode B, Horizontal polarity (30MHz - 1GHz)

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: pei #8837 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Commpass Pager(On-Site Paging)

Mode: Model: 450163

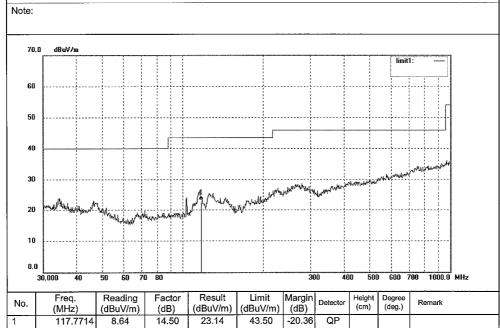
Manufacturer: Blue Ocean Innovation

Power Source: DC 2.4V

Date: 12/05/25/ Time: 7/04/48

Engineer Signature: PEI

Distance: 3m



Polarization:



Figure 14: Test figure of Radiated emissions, model 450163, mode B, Vertical polarity (30MHz - 1GHz)

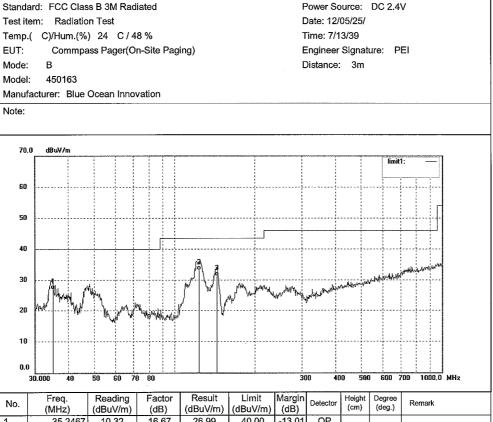
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: pei #8838

Standard: FCC Class B 3M Radiated



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.2467	10.32	16.67	26.99	40.00	-13.01	QP			
2	122.3381	18.26	14.85	33.11	43.50	-10.39	QP			
3	143.7423	16.74	14.49	31.23	43.50	-12.27	QP			



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Figure 15: Test figure of Radiated emissions, model 450163, mode B, Horizontal polarity (1GHz - 6GHz)

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Time: 8/32/43

Distance: 3m

Engineer Signature: PEI

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

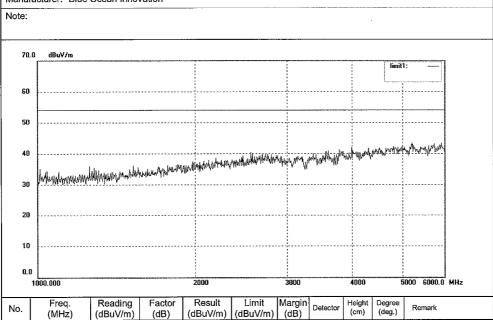
Job No.: pei #8850 Polarization: Horizontal Standard: FCC Class B 3M Radiated Power Source: DC 2.4V Date: 12/05/25/

Test item: Radiation Test Temp.(C)/Hum.(%) 24 C / 48 % EUT:

Commpass Pager(On-Site Paging)

Mode: Model: 450163

Manufacturer: Blue Ocean Innovation



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Figure 16: Test figure of Radiated emissions, model 450163, mode B, Vertical polarity (1GHz - 6GHz)

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Power Source: DC 2.4V Date: 12/05/25/

Engineer Signature: PEI

Time: 8/23/23

Job No.: pei #8849 Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 % EUT:

Commpass Pager(On-Site Paging)

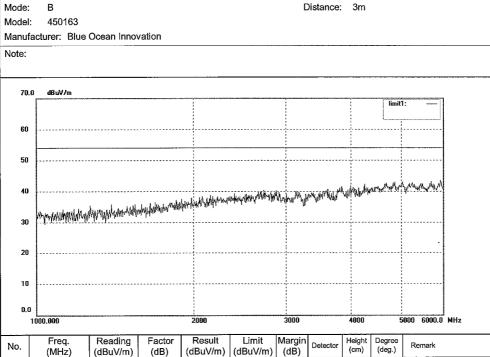




Figure 17: Test figure of Radiated emissions, model 450180, mode B, Horizontal polarity (30MHz - 1GHz)

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Time: 7/31/41

Distance: 3m

Engineer Signature: PEI

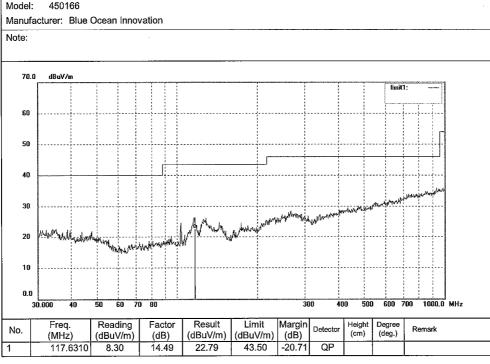
Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: pei #8840 Standard: FCC Class B 3M Radiated Power Source: DC 2.4V Date: 12/05/25/

Test item: Radiation Test Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Commpass Pager(On-Site Paging) Mode:

450166 Model:





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Figure 18: Test figure of Radiated emissions, model 450180, mode B, Vertical polarity (30MHz - 1GHz)

ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Time: 7/23/05

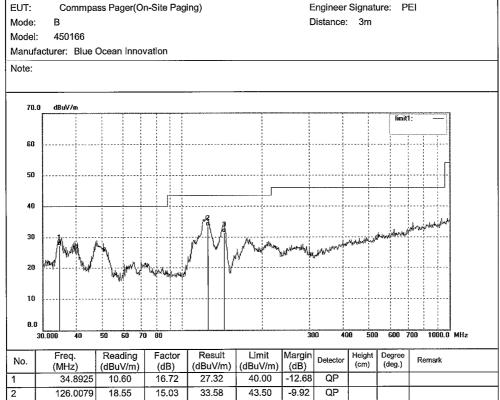
Power Source: DC 2.4V Date: 12/05/25/

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 %

Commpass Pager(On-Site Paging) EUT:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	34.8925	10.60	16.72	27.32	40.00	-12.68	QP			
2	126.0079	18.55	15.03	33.58	43.50	-9.92	QP			
3	143.8613	16.95	14.48	31.43	43.50	-12.07	QP			



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Figure 19: Test figure of Radiated emissions, model 450180, mode B, Horizontal polarity (1GHz – 6GHz)



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 966 chamber
Tel:+86-0755-26503290
a Fax:+86-0755-26503396

Date: 12/05/25/

Distance: 3m

Engineer Signature: PEI

Time: 8/11/04

Job No.:pei #8845Polarization:HorizontalStandard:FCC Class B 3M RadiatedPower Source:DC 2.4V

Test item: Radiation Test

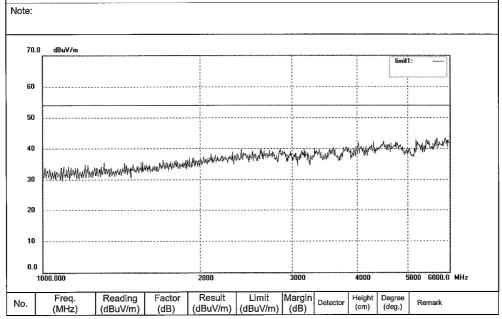
Temp.(C)/Hum.(%) 24 C / 48 %

EUT: Commnacs Pager/On-Site Paging)

EUT: Commpass Pager(On-Site Paging)

Mode: B Model: 450166

Manufacturer: Blue Ocean Innovation





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Figure 20: Test figure of Radiated emissions, model 450180, mode B, Vertical polarity (1GHz - 6GHz)

ACCURATE TECHNOLOGY CO., LTD.

Site: 966 chamber Tel:+86-0755-26503290 F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Fax:+86-0755-26503396 Science & Industry Park, Nanshan Shenzhen, P.R. China

Time: 8/18/27

Distance: 3m

Polarization: Vertical

Power Source: DC 2.4V Date: 12/05/25/

Engineer Signature: PEI

Job No.: pei #8848

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 24 C / 48 % EUT:

Commpass Pager(On-Site Paging) Mode:

Model: 450166

Manufacturer: Blue Ocean Innovation

