

**Test Report** 

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**Testing** 



Consultancy

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### REPORT ON ELECTROMAGNETIC COMPATIBILITY TESTS

Performed at: TWENTY PENCE TEST SITE

> Twenty Pence Road, Cottenham, Cambridge U.K. **CB24 8PS**

> > on

Sepura PLC

STP8080/STP8280

dated

22nd June 2012

#### **Document History**

Issue	Date	Affected page(s)	Description of modifications	Revised by	Approved by
1	04/07/12		Initial release		

Based on report template: v090319

dB)	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
	Test No:	T4353	Test Report	Page:	2 of 121

Equipment Under Test (EUT):	STP8080/STP8280
Test Commissioned by:	Sepura PLC Radio House St Andrews Road Cambridge Cambridgeshire CB4 1GR
Representative:	Bob Allen
Test Started:	10th May 2012
Test Completed:	20th June 2012
Test Engineer:	Dave Smith
Date of Report:	22nd June 2012
Written by: Dave Smith	Checked by: Derek Barlow
Signature: D- A-Switt	Signature:
Date: 22nd June 2012	Date: 4th July 2012

dB Technology can only report on the specific unit(s) tested at its site. The responsibility for extrapolating this data to a product line lies solely with the manufacturer.

# **Test Standards Applied**

Part 90 of CFR47	Private Land Mobile Radio Services

CFR 47 Part 15 Code of Federal Regulations: Pt 15 Subpart B- Radio Frequency Devices - Unintentional Radiators

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# **Emissions Test Results Summary**

Part 90					PASS
Test	Port	Method	Limit	PASS/FAIL	Notes
Output		90.205	90.205(h)	No	#1
Power				Limit	
Radiated					
Output	antenna	90.205	90.205(h)	No	#1
Power		2.1046		Limit	
Conducted					
Types of	antenna	90.207	Specified by		
Emissions		2.1047	manufacturer		
Bandwidth	antenna	90.209	90.209(b)(5)	PASS	#2
		2.1049			
Emissions		90.210	90.221(d)	PASS	#3
Masks		2.1051			
Radiated					
Emissions	antenna	90.210	90.221(d)	PASS	#3
Masks		2.1051			
Conducted					
Frequency	antenna	90.213	90.213	PASS	
Stability		2.1055			
Frequency	antenna	90.214	90.214	PASS	
Transient					
Behaviour					
Adjacent		90.221	90.221(b)	PASS	
Channel					
Power					

specs\_canadav111211

CFR 47 Part 15 PASS

Test	Port	Method	Limit	PASS/FAIL	Notes
Conducted Emissions	ac power	ANSI C63.4:2003	CISPR22(B)	N/A	#4
Radiated Emissions		ANSI C63.4:2003	FCC_B	PASS	

specs\_fccv100412

This Report shows that the EUT met all of the requirements for the tests performed - as shown above.

<sup>#1</sup> There is no specific limit on output power.

<sup>#2</sup> The additional note 6 of FCC Waiver 11-63 was applied which allows a bandwidth of up to 22kHz providing the additional Adjacent Channel Power requirements are met.

<sup>#3</sup> The additional note 5 of FCC Waiver 11-63 was applied which only stipulates limits 75kHz from the carrier providing the additional Adjacent Channel Power requirements are met.

<sup>#4</sup> Test not applicable because EUT does not have ac power port...

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## FCC ID: XX6-STP8080 / XX6-STP8280

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### 1 EUT Details

#### 1.1 General

The EUT was a TETRA Voice + Data Hand Portable.

The transmitter can operate over the following frequency bands:

817MHz to 824MHz (in TMO mode) 862MHz to 869MHz (in DMO mode)

The receiver can operate over the following frequency bands:

862MHz to 869MHz

Measurements were made at the top and bottom of the appropriate frequency range:

 Bottom:
 817 MHz

 Top:
 824 MHz

 Bottom:
 862 MHz

 Top:
 869 MHz

The nominal output power is 32.5dBm (1.8W).

The product can be used on a standalone basis in which case it is powered from an internal battery. It can also be used in conjunction with a Car Kit in which case it is powered from a lead acid vehicle battery with nominal voltage of 13.2V.

FCC part 90 requirements using the "Tetra Waiver" as described in FCC 11-63.

This report additionally includes radiated emissions measurements:

- o with a Remote Speaker Microphone (RSM) connected;
- o in a Car Kit configuration.

All tests were performed on the STP8080 which is the fully featured unit. For the STP8280 variant it was only considered necessary to perform receiver mode radiated emissions measurements.

Radiated field strength tests were performed at the dB Technology Test Site Registered with the FCC: Registration number: 90528.

Unless otherwise stated, tests were performed with nominal power supply voltage.

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## 1.2 Modifications to EUT and Peripherals

Details of any modifications that were required to achieve compliance are listed below. The modification numbers are referred to in the results sections as appropriate.

Mod No:	Details	Implemented for
0	Original sample as supplied.	
1	Screening can correctly fitted.	Radiated Spurious

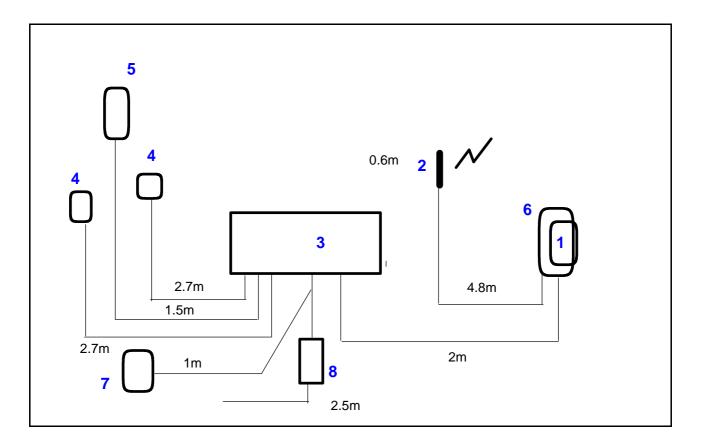
# 1.3 EUT Operating Modes

The EUT was tested in the following operating mode or modes. Generally, operating modes are chosen that will exercise the functions of the EUT as fully as possible and in a manner likely to produce maximum emission levels or susceptibility. Individual test result sheets reference the operating mode of the EUT.

Operating Mode	Details
1	Transmitting on selected channel.
2	Receiving on selected channel.

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Figure 1 Car Kit Configuration

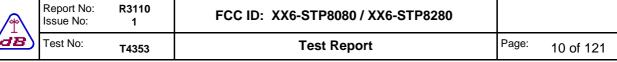


Item	Manufacturer	Model	Description	Serial No:	Notes
1 2 3 4 5 6 7 8	Sepura Sepura Sepura Sepura Sepura Sepura Kingshill	STP8080 300-00390 300 00797 300 00657 300 00492 300 00796 300 00719 18V10CA	TETRA Hand Portable Antenna CarKit Hands Free Kit Handset Cradle Speaker Bench Power Supply	1PRC01209G4K6MV 566	

The same sample of Tetra Hand Portable was used for the conducted antenna tests.

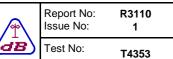
The serial number of the STP8280 was 1PR101114G4D4VX.

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX
(dB)	Test No:	T4050	Test Report



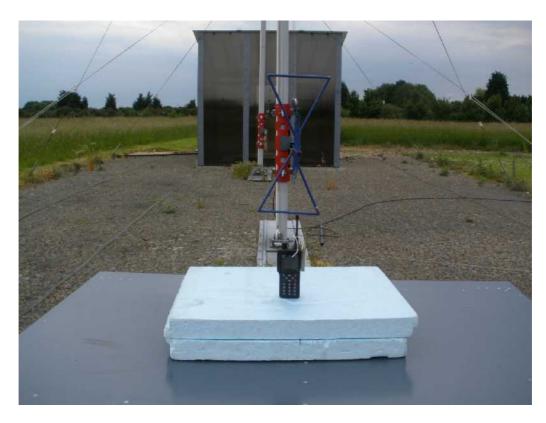


Photograph 1 STP8080: Connected to Agilent Analyser

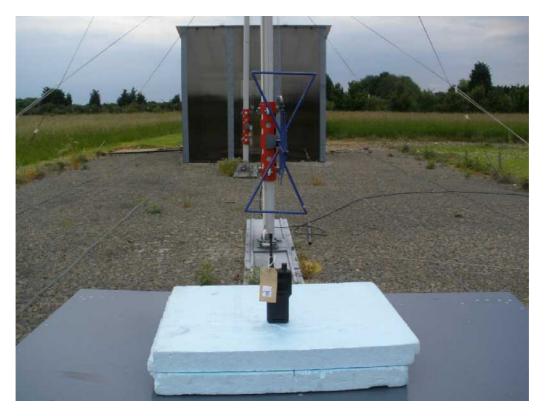


**Test Report** 

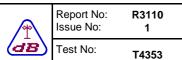
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Photograph 2 Standalone: Radiated Emissions - Front

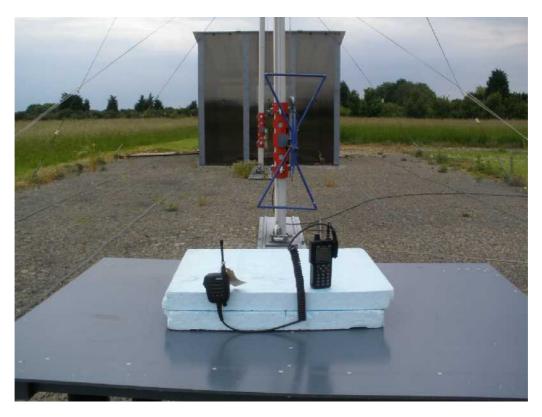


Photograph 3 Standalone: Radiated Emissions - Back



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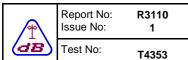
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Photograph 4 With RSM: Radiated Emissions - Front



Photograph 5 With RSM: Radiated Emissions - Back



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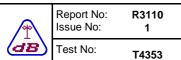
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Photograph 6 Car Kit: Radiated Emissions - Front

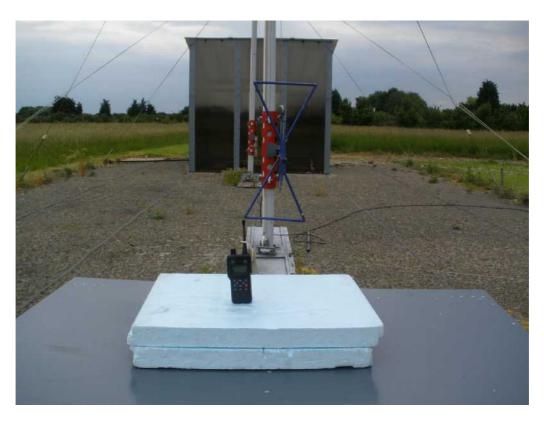


Photograph 7 Car Kit: Radiated Emissions - Back

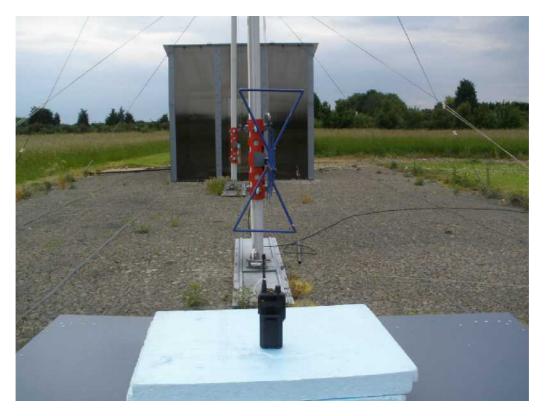


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Photograph 8 STP8280: Radiated Emissions - Front



Photograph 9 STP8280: Radiated Emissions - Back

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# 2 Test Equipment

The test equipment used during the tests was one or more of the items listed below. Individual test result sheets indicate which items were used.

Ref No:	Details	Serial Number	Cal Date	Cal Interva
	51400 0445 DD 044 (4 4004)	0.404	00/04/0040	
A19	EMCO 3115 DR Guide (1-18GHz)	2431	23/01/2012	1 year
A23	EMCO 3115 DR Guide (1-18GHz)	9507-4525	31/01/2012	1 yea
A24	Chase X-wing Bilog CBL6144 26MHz-3GHz	27590	18/11/2011	1 yea
A30	Schwarzbeck MiniBicon (30MHz to 1GHz)	9115-180	21/01/2010	3 yea
<b>A</b> 5	Chase Bilog CBL6111A	1760	31/01/2012	1 yea
PM6	Marconi 6960B RF Power Meter	236923/003	20/12/2011	1 yea
PRE3	dB Tech 100M-20G 36dB pre-amp	03	08/01/2012	1 yea
PS10	Marconi 6910 RF Power Sensor (-30dBm / + 20dBm) 10MHz to 20GHz	5009	20/12/2011	1 yea
R4	R&S ESVS10	843744/002	16/12/2011	1 yea
R8	Agilent E7405A Spectrum Analyser	MY44212494	19/09/2011	1 yea
R9	Agilent E7405A Spectrum Analyser	MY45110758	21/11/2011	1 yea
RFF15	Band Pass Filter 1GHz to 2GHz	15	08/02/2012	1 year
RFF16	500MHz to 1GHz Notch Filter	FF204-3	08/02/2012	1 ye
RFF17	Low Pass RF Filter 550MHz	17	08/02/2012	1 ye
RFF22	High Pass Filter - 1.35GHz (10GHz) MicroTronics HPM13017	033	20/12/2011	1 ye
G16	Marconi 6203 Microwave Test Set (10MHz - 26.5GHz)	236252/025	08/02/2012	1 ye
SG9	HP 8648C 9kHz-3.2GHz Signal Generator	3847A05254	08/02/2012	1 ye
SEP1	R&S FSU Spectrum Analyser	200088	02/04/2009	3 yea
TTS	IFR 2968 Tetra radio Test Set	296501/107	11/11/2011	1 year

The Tetra Test Set is owned by Sepura.

The calibration of the signal generator was not critical because its output frequency, level and modulation were measured with calibrated equipment during each test.

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### 3 Test Methods

#### 3.1 Antenna Conducted Carrier Power

The antenna output is connected to a spectrum analyser via a suitable PAD. The bandwidth on the spectrum analyser is set to greater than the EUT occupied bandwidth. A peak measurement is recorded. Additional measurements are made with antenna output connected to a power meter providing average measurements.

#### 3.2 Antenna Conducted Transmitter Unwanted Emissions

Measurements are made with the antenna output connected to a spectrum analyser via a suitable PAD. Sweeps are made over the specified frequency ranges . The limit is set relative to the measured carrier power. A peak detector is used.

## 3.3 Antenna Conducted Occupied Bandwidth

Measurements are made with the antenna output connected to a spectrum analyser via a suitable PAD. Sweeps are made with a 300Hz Resolution Bandwidth and a 1kHz Video Bandwidth. A peak detector is used. Markers are used to determine the 99% power bandwidth.

## 3.4 Antenna Conducted Adjacent Channel Power

Measurements are made with the antenna output connected to an R&S FSU Spectrum Analyser via a suitable PAD. The Analyser is set to make adjacent channel power measurements using the pre-configured settings for Tetra with 25kHz channel spacing.

## 3.5 Frequency Stability

The EUT is placed in an environmental chamber. The temperature inside the chamber is set to the required level and allowed to stabilise.

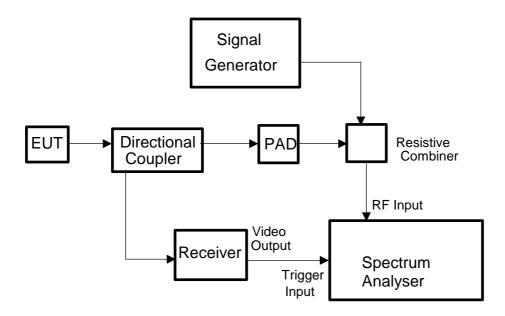
For DMO mode the antenna output is connected to a spectrum analyser via a suitable PAD. The EUT is set to transmit with constant carrier (at a frequency 2.25kHz above channel centre frequency). The frequency is measured using the frequency counter function of the spectrum analyser.

For TMO mode the antenna output is connected to a Tetra Test Set. The EUT is set to transmit using normal burst operation. the frequency error, as indicated by the Tetra Test Set, is recorded.

Measurements are made at the specified temperature and over the required voltage supply range of the EUT.

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## 3.6 Transient Frequency Behaviour



The test equipment was set up as shown above.

The spectrum analyser was set to 0Hz span with its inbuilt FM demodulation function activated.

Initially only the EUT was set to transmit an unmodulated signal and the centre frequency of the analyser adjusted to give 0Hz FM deviation.

The EUT transmitter was then switched off and the signal generator set to provide a carrier only output. The frequency of the signal generator was adjusted to again give 0Hz FM deviation on the spectrum analyser.

The signal generator FM modulation was then switched on and adjusted to give 25kHz FM deviation on the spectrum analyser.

The spectrum analyser was then set to trigger only on video output from the receiver. The directional coupler was used to feed an attenuated portion of the EUT transmitter into the receiver. The receiver was tuned to the transmit frequency and so produced a change on its video output when the transmitter was switched on and off. This signal was used to trigger the spectrum analyser.

FM deviation data was recorded from the spectrum analyser for both carrier switch on and switch off and at all three test frequencies.

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## 3.7 Radiated Transmitter Emissions (Substitution Method)

Initial scans are performed in a semi-anechoic screened room at a distance of 3m. Scans are performed over the frequency range specified in the test standard with the antenna both horizontally and vertically polarised. During these scans the EUT and peripherals are rotated through 360°. Bench top EUTs are placed on a non-conducting bench at a height of 0.8m above the ground plane. Floor standing EUTs are placed 0.1m above the ground plane. The EUT cables were manipulated in an attempt to produce maximum emissions. The results of the scans are shown in the plots included at the end of the report.

Significant emissions identified by the scans are measured using a substitution method. Maximised emission readings are obtained by rotating the EUT through 360° and adjusting the height of the antenna from 1m to 4m. Measurements are made with the antenna both horizontally and vertically polarised and the results tabulated.

The EUT is then replaced with a calibrated reference antenna fed from a signal generator. The level fed into the reference antenna is measured with a power meter. Measurements are made to determine the power output of the signal generator required to give the same emission levels as were observed from the EUT.

The radiated power from the EUT is calculated as:

Signal Level + Gain of + Radiated Level - Radiated Level fed into Reference Antenna + Radiated Level - Radia

For example, assuming following measurements:

Signal Level fed into Reference Antenna = -14.3dBm
Gain of Reference Antenna = 7.1 dBi
Radiated Level from EUT (i.e. Level at Measuring Receiver) = 37 dBuV
Radiated Level from Reference Antenna (i.e. Level at Measuring Receiver) = 61.5 dBuV

Then the Radiated Power from the EUT = -14.3 + 7.1 + 37 - 61.5 dBm (isotropic) = -31.7 dBm (isotropic)

### 3.8 Receiver Radiated Emissions

Initial scans are performed in a semi-anechoic screened room at a distance of 3m. Scans are performed over the frequency range specified in the test standard with the antenna both horizontally and vertically polarised. During these scans the EUT and peripherals are rotated through 360°. Bench top EUTs are placed on a non-conducting bench at a height of 0.8m above the ground plane. Floor standing EUTs are placed 0.1m above the ground plane. The EUT cables were manipulated in an attempt to produce maximum emissions. The results of the scans are shown in the plots included at the end of the report.

Significant emissions identified by the scans are measured on an open area test site at the appropriate test distance using a CISPR16 quasi-peak receiver. Maximised readings are obtained by rotating the EUT through 360° and adjusting the height of the antenna from 1m to 4m. Measurements are made with the antenna both horizontally and vertically polarised and the results tabulated.

Tabulated results show levels based on the following calculation:

Field Strength (dBuV) = receiver reading (dBuV) + CF (dB/m)

CF is the correction factor for the antenna and cable.

For example:

at 114MHz receiver reading was 17.9 dBuV, combined correction factor = 13.1 (dB/m).

Total field strength = 17.9 + 13.1 = 31.0 dBuV/m.

	Report No: Issue No:	R3110 1 FCC ID: XX6-STP8080 / XX6-STP8280			
(dB)	Test No:	T4353	Test Report	Page:	19 of 121

## 4 Test Results

The following sections contain tabulated test results. Plots of various scans are included at the back of this section.

<u> </u>	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	20 of 121

# 4.1 Conducted Antenna Output Power

Factor Set 1: Factor Set 2: Factor Set 3:

Company	<i>Emissions (Signal)</i> Sepura PLC		Product: STP8080/STP8280
Date:	06/06/2012		Test Eng: Dave Smith
Ports:	antenna		
Test: Ports:	90.205	using limits o	of 90.205(h)
Test:		using limits o	of
Notes		(	Comments and Observations
	Spectrum anla	vear raculte ue	ing a peak detector are shown in plots 1 to 4.
	Spectrum ana	yser results us	ing a peak detector are shown in plots 1 to 4.
	Measurements	s were also ma	de using a power meter with an average detector.
	Measurements	s were made w	vith continuous modulation.
	Taking into acc measurements		of the cable and attenuators the following
	Channel	Peak dBm	Average dBm
	817 MHz	36.0	33.02
	824 MHz	36.2	33.08
	862 MHz	35.7	33.09
	869 MHz	35.8	33.06
	817 MHz 824 MHz 862 MHz	dBm 36.0 36.2 35.7	dBm  33.02  33.08  33.09

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	21 of 121

# 4.2 Conducted Antenna Occupied Bandwidth

Factor Set 1:
Factor Set 2: -- -Factor Set 3: -- -Test Equipment: R9

Conducted Emissions (Signal)

Conaucted	i Emissions (Signai)			
Compan	<sup>y:</sup> Sepura PLC		Product: STP8080/STP8280	
Date:	07/06/2012		Test Eng: Dave Smith	
Ports:	antenna			
Test:	90.209	using limits of	90.209(b)(5)	
Ports:				
Tost.		ucina limite of		

Test:	using limits of
Notes	Comments and Observations
	Measurements were made with continuous modulation applied.  Spectrum analyser results are shown in plots 5 to 8.  Using the "Bandwidth Power" function of the spectrum analyser, the following measurements were recorded:
	817MHz 20.97 kHz 824MHz 21.01 kHz
	862MHz 21.03 kHz 869MHz 21.05 kHz
	Limit:
	Using note 6 in the "Tetra Waiver" (FCC11-63) the limit is 22kHz (providing Adjacent Channel Power requirements are met).
	PASS

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	22 of 121

# 4.3 Frequency Stability - DMO Mode - Absolute Frequency Measurements

Factor Set 1:
Factor Set 2: -- -Factor Set 3: -- -Test Equipment: R9

FrequencyStability

Notes

Compan	<sup>y:</sup> Sepura PLC		Product: STP8080/STP8280
Date:	12/06/2012		Test Eng: Dave Smith
Ports:	antenna		
Test:	90.213	using limits of	90.213
Ports:			
Test:		using limits of	

**Comments and Observations** 

	DMO Frequency	(as recorded from	Spectrum Analyse	r Frequenct Counter
			862MHz	869MHz

		862MHz	869MHz
		Channel	Channel
-30.0°C	6.4V	862.002618	869.002378
	7.4V	862.002612	869.002335
-20.0° C	6.4V	862.002598	869.002484
	7.4V	862.002579	869.002526
-10.0° C	6.4V	862.002396	869.002428
	7.4V	862.002407	869.002423
0.0° C	6.4V	862.002429	869.002450
	7.4V	862.002448	869.002450
10.0°C	6.4V	862.002399	869.002433
	7.4V	862.002430	869.002444
20.0°C	6.4V	862.002334	869.002333
	7.4V	862.002342	869.002353
30.0°C	6.4V	862.002310	869.002310
	7.4V	862.002317	869.002313
40.0°C	6.4V	862.002278	869.002227
	7.4V	862.002283	869.002280
50.0°C	6.4V	862.002279	869.002281
	7.4V	862.002273	869.002293
55.0°C	6.4V	862.002271	869.002274
	7.4V	862.002263	869.002280

See next page for deviation from nominal voltage/temperature.

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	23 of 121

#### Frequency Stability - DMO Mode - Deviations from Nominal Volt/Temp - ppm 4.4

Factor Set 1: Factor Set 2: Factor Set 3: Test Equipment: R9

Frequency	/Stability			
Compan	<sup>y:</sup> Sepura PLC		Product:	STP8080/STP8280
Date:	12/06/2012		Test Eng:	Dave Smith
Ports:	antenna			
Test:	90.213	using limits of	90.213	
Ports:	-		-	
Test:		using limits of		

DMO Frequency deviation from nominal voltage/temperators	869MHz
862MHz 8	
	Channel
-30.0° C 6.4V 0.320	0.029 -0.021
	0.151
7.4V 0.275	0.199
	0.086
7.4V 0.075	0.081
	0.112
7.4V 0.123	0.112
	0.092
7.4V 0.102	0.105
	-0.023
7.4V 0.000	0.000
	-0.049
7.4V -0.029	-0.046
	-0.126
7.4V -0.059	-0.073
	-0.083
7.4V -0.080	-0.069
	-0.091
7.4V -0.092	-0.084
The part 90 Limit for the 854MHz to 869MHz band is 2.5	5ppm

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	24 of 121

# 4.5 Frequency Stability - TMO Mode - Frequency Error Hz

Factor Set 1:
Factor Set 2:
Factor Set 3:
Test Equipment: TTS

FrequencyStability

Trequencys	aviiity			
Company:	Sepura PLC	=-	Product:	STP8080/STP8280
Date:	12/06/2012		Test Eng:	Dave Smith
Ports:	antenna			
Test:	90.213	using limits of	90.213	
Ports:				
Test:		using limits of		

		817MHz Channel	824MHz Channel	
-30.0° C	6.4V	-11.1	-1.5	┪
	7.4V	-10.1	-0.9	
-20.0° C	6.4V	-12.7	-3.2	$\dashv$
	7.4V	-13.1	-4.7	
-10.0° C	6.4V	-14.1	-4.1	$\dashv$
	7.4V	-13.7	-6.6	
0.0°C	6.4V	-16.1	-14.1	┪
	7.4V	-14.6	-14.1	
10.0° C	6.4V	-3.9	-13.2	$\exists$
	7.4V	-2.4	-14.4	
20.0° C	6.4V	-5.7	-3.0	$\dashv$
	7.4V	-6.7	0.2	
30.0° C	6.4V	-11.2	-15.2	
	7.4V	-11.5	-15.4	
40.0°C	6.4V	-7.2	-12.4	1
	7.4V	-9.1	-14.5	
50.0°C	6.4V	-4.7	-6.2	1
	7.4V	-4.5	-9.5	
55.0° C	6.4V	-5.2	-4.6	1
	7.4V	-5.1	-7.8	

See next page for deviation in ppm.

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	25 of 121

# 4.6 Frequency Stability - TMO Mode - Deviation from nominal volt/temp - ppm

Factor Set 1:
Factor Set 2:
Factor Set 3:
Test Equipment: TTS

FrequencyStability

Frequency	/Stability		
Compan	<sup>y:</sup> Sepura PLC		Product: STP8080/STP8280
Date:	12/06/2012		Test Eng: Dave Smith
Ports:	antenna		
Test:	90.213	using limits of	90.213
Ports:		_	
Test:		using limits of	
		_	

TMO Frequency deviation - ppm    817MHz
Channel Channel -30.0° C 6.4V -0.005 -0.002 -7.4V -0.004 -0.001  -20.0° C 6.4V -0.008 -0.006  -10.0° C 6.4V -0.009 -0.005 -7.4V -0.009 -0.008  0.0° C 6.4V -0.012 -0.017 -0.010 -0.017  10.0° C 6.4V -0.010 -0.017  10.0° C 6.4V -0.010 -0.018
-30.0°C 6.4V -0.005 -0.002 -0.004 -0.001  -20.0°C 6.4V -0.008 -0.006  -10.0°C 6.4V -0.009 -0.005 -0.008  0.0°C 6.4V -0.012 -0.017 -0.010 -0.017  10.0°C 6.4V -0.010 -0.017  10.0°C 6.4V -0.010 -0.017
7.4V -0.004 -0.001  -20.0°C 6.4V -0.008 -0.006  -10.0°C 6.4V -0.009 -0.005 7.4V -0.009 -0.008  0.0°C 6.4V -0.012 -0.017 7.4V -0.010 -0.017  10.0°C 6.4V 0.003 -0.016 7.4V 0.005 -0.018
7.4V -0.008 -0.006  -10.0°C 6.4V -0.009 -0.005  7.4V -0.009 -0.008  0.0°C 6.4V -0.012 -0.017  7.4V -0.010 -0.017  10.0°C 6.4V 0.003 -0.016  7.4V 0.005 -0.018
-10.0°C 6.4V -0.009 -0.005 7.4V -0.009 -0.008 0.0°C 6.4V -0.012 -0.017 7.4V -0.010 -0.017 10.0°C 6.4V 0.003 -0.016 7.4V 0.005 -0.018
7.4V -0.009 -0.008  0.0°C 6.4V -0.012 -0.017 7.4V -0.010 -0.017  10.0°C 6.4V 0.003 -0.016 7.4V 0.005 -0.018
0.0°C 6.4V -0.012 -0.017 7.4V -0.010 -0.017 10.0°C 6.4V 0.003 -0.016 7.4V 0.005 -0.018
7.4V -0.010 -0.017 10.0°C 6.4V 0.003 -0.016 7.4V 0.005 -0.018
10.0°C 6.4V 0.003 -0.016 7.4V 0.005 -0.018
7.4V 0.005 -0.018
20.0°C 6.4V 0.001 -0.004
7.4V 0.000 0.000
30.0°C 6.4V -0.006 -0.019
7.4V -0.006 -0.019
40.0°C 6.4V -0.001 -0.015
7.4V -0.003 -0.018
50.0°C 6.4V 0.002 -0.008
7.4V 0.003 -0.012
55.0°C 6.4V 0.002 -0.006
7.4V 0.002 -0.010

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	26 of 121

#### **Conducted Emissions Antenna Adjacent Channel Power** 4.7

Factor Set 1: Factor Set 2: Factor Set 3: Test Equipment: SEP1

			Product:	STP808	O/STP828	30
Sepura PLC 07/06/2012	Test Eng: Dave Smith					
antenna						
90.213	90.213 using limits of					
	using lin	nits of				
		Comme	ents and Ol	oservations		
						ts 9 to 12.
Readings in o	dBc		Channel			
	-75kHz	-50kHz	-25kHz	+ 25kHz	+ 50kHz	+ 75kHz
817MHz	-77.41	-74.68	-63.83	-63.56	-74.62	-77.39
824MHz	-77.62	-74.85	-63.66	-63.57	-74.88	-77.50
862MHz	-76.73	-73.79	-62.22	-62.26	-73.24	-76.60
869MHz	-76.46	-73.29	-61.47	-61.46	-73.24	-76.73
Limit (dBc)	-65	-65	-55	-55	-65	-65
PASS						
	Using the R8 adjacent chat Readings in control	antenna 90.213  using lin  using lin  Using the R&S FSU Spec adjacent channel power  Readings in dBc  -75kHz  817MHz -77.41  824MHz -77.62  862MHz -76.73  869MHz -76.46  Limit (dBc) -65  Limit shown is the maximal less than 15 W and oper	using limits of  Using the R&S FSU Spectrum analy adjacent channel power settings.  Readings in dBc  -75kHz -50kHz  817MHz -77.41 -74.68  824MHz -77.62 -74.85  862MHz -76.73 -73.79  869MHz -76.46 -73.29  Limit (dBc) -65 -65  Limit shown is the maximum allowed less than 15 W and operating at a feature of the set of the	using limits of  Using the R&S FSU Spectrum analyser with the adjacent channel power settings. Captured research Readings in dBc  Channel  -75kHz -50kHz -25kHz  817MHz -77.41 -74.68 -63.83  824MHz -77.62 -74.85 -63.66  862MHz -76.73 -73.79 -62.22  869MHz -76.46 -73.29 -61.47  Limit (dBc) -65 -65 -55  Limit shown is the maximum allowed level (dB less than 15 W and operating at a frequency as a series of the series of th	Second   S	### antenna   ### 90.213

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	27 of 121

#### **Transmitter Transient Frequency Behaviour - Results** 4.8

Factor Set 1: Factor Set 2: Factor Set 3:

Test Equip	ment: R9 R4 SG9							
Conducted	Emissions (Signal)							
	Sepura PLC			Product:	STP8080/STP8280			
Date:	06/06/2012			Test Eng:	Dave Smith			
Ports:	antenna		_					
Test: Ports:	90.214	using limits	5 Of	90.214				
Test:		using limits	of					
Notes		Comments and Observations						
		t of the antenna <sub> </sub> ined with the out			s fed through a Directional Coupler and erator.			
	The spectr	um analyser has	an FM den	nodulatio	n function.			
					t carrier output and the ve OHz FM deviation.			
	signal gene	erator set at appr	roximately	the same	arrier only signal output from the e frequency as the EUT. This frequency in the spectrum analyser.			
	The signal	generator was th	hen set to g	give 25kl	Hz FM deviation (with 1kHz signal).			
	tuned to th		ncy. The v	ideo outp	oupler was fed into a receiver out of this receiver was used to trigger ned on or off.			
	The results	s of sweeps capt	ured from t	the spect	trum analyser are shown in plots 13 to 2			
					ets the Transient Frequency Behaviour as shown below:			
	t1 t2 t3	Frequency ± 25 kHz ± 12.5 kHz ± 25 kHz	Duration 10 msec 25 msec 10 msec					

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	28 of 121

# 4.9 Conducted Emissions Antenna Spurious Emissions

Factor Set 1:
Factor Set 2: ---Factor Set 3: ---

Test Equi	ipment: R9 RFF17 RFF15 RFF22					
Conducted	f Emissions (Signal)					
Company	Sepura PLC Product: STP8080/STP8280					
Date:	07/06/2012					
Ports:	antenna					
Test:	90.213 using limits of 90.213					
Ports: Test:	using limits of					
Notes	Comments and Observations					
	Results of scans shown in plots 21 to 28.					
	Nesarts of souris shown in plots 21 to 20.					
	The limit line shown on the plots is at -13dBm.					
	All spurious emissions were below this limit.					

PASS

<u> </u>	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	29 of 121

## 4.10 Radiated Emissions - Transmit Carrier ERP - Standalone

Factor Set 1: A30\_dBi\_10A - - -

Factor Set 2: - - - - Factor Set 3: - - - -

Test Equipment: R9 A24 A30 SG16 PM6 PS10

Substitution\_Emissions

Cubstituti	OII_EIIII33IOII3			
Compar	<sup>ny:</sup> Sepura PLC		Product: STP8080/STP8280	
Date:	29/05/2012		Test Eng: Dave Smith	
Ports:				
Test:	90.205	using limits of	90.205(h)	
Ports:		_		
Test:		using limits of		

7 031	using limits of													
Op Mode	Mod State		Freq. MHz	Cable Sig Gen Level Cable dBm	e Loss Rec'vr Level Cable	Ant Pol	Rec'vr Level EUT dBuV	Sig Gen Level Sub'n Ant dBm	Rec'vr Level Sub'n Ant dBuV	Sub'n Ant Gain dBi	ERP	Limit	Margin dB	Note
1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	817.000 817.000 824.000 824.000 862.000 862.000 869.000	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	V H V H V H	108.1 96.2 107.4 93.7 107.3 93.6 106.5 95.7	-16.5 -16.5 -16.5 -16.6 -16.6 -16.6	48.9 48.7 48.6 48.8 47.5 48.0 47.4 48.2	-6.1 -6.1 -6.1 -6.1 -6.2 -6.2	36.6 24.9 36.2 22.4 37.1 22.8 36.2 24.6			
	Resul	ts		Minimur PASS/F		n			N/A	dB				

Notes

## Standalone

The results above are radiated measurements using the substitution method.

There are no specific limits in the standard for this test.

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	30 of 121

## 4.11 Radiated Emissions - Transmit Carrier ERP - With RSM

using limits of

A30\_dBi\_10A - - -Factor Set 1:

Factor Set 2: ----Factor Set 3:

Test Equipment: R9 A24 A30 SG16 PM6 PS10

Substitution Emissions

Jubstituti	UI_LIIII33IUII3			
Compar	<sup>ny:</sup> Sepura PLC		Product: STP8080/STP8280	
Date:	29/05/2012		Test Eng: Dave Smith	
Ports:				
Test:	90.205	using limits of	90.205(h)	
Ports:		_		
Test:		usina limits of		

Op Mode	Mod State		Freq. MHz	Cable Sig Gen Level Cable dBm	Loss Rec'vr Level Cable	Ant Pol	Rec'vr Level EUT dBuV	Sig Gen Level Sub'n Ant dBm	Rec'vr Level Sub'n Ant dBuV	Sub'n Ant Gain dBi	ERP	Limit dBm	Margin dB	Note
1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1	817.000 817.000 824.000 824.000 862.000 869.000 869.000	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	> H > H > H > H	102.7 98.9 102.2 98.4 102.4 96.5 101.7 98.1	-16.5 -16.5 -16.5 -16.6 -16.6 -16.6	48.9 48.7 48.6 48.8 47.5 48.0 47.4 48.2	-6.1 -6.1 -6.1 -6.1 -6.2 -6.2	31.2 27.6 31.0 27.1 32.2 25.7 31.4 27.1			
	Resul	ts		Minimur PASS/F		n			N/A	dB				

Notes

The results above are radiated measurements using the substitution method.

There are no specific limits in the standard for this test.

<u> </u>	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
I /\	Test No:	T4353	Test Report	Page:	31 of 121

## 4.12 Radiated Emissions - Transmit Carrier ERP - with Car Kit

A30\_dBi\_10A - - -Factor Set 1:

Factor Set 2: ----Factor Set 3:

Test Equipment: R9 A24 A30 SG16 PM6 PS10

Substi	itution <u></u>	_Emi	ssions											
Com	npany:	Sep	oura PLC					Product:	STP8	080/ST	P8280			
Date	e <i>:</i>	01/0	06/2012					Test Eng:	Dave S	Smith				
Port:	s:													
Test	<u>'</u> :	90	.205	u	sing limi	its of		90.205	(h)					
Port:	s:													
Test	:			u	sing limi	its of								
Ор	Mod	CF	Freq.	Cable Sig Gen		Ant	Rec'vr	Sig Gen	Rec'vr	Sub'n	ERP	Limit	Margin	Note
Mode			•	Level Cable	Level Cable	Pol	Level EUT	Level Sub'n	Level Sub'n	Ant Gain				
				dRm	dRm		dRuV	Ant	Ant dBuV	dВi	dRm	dRm	dВ	

Op Mode	Mod State		Freq. MHz	Sig Gen Level Cable		Ant Pol	Rec'vr Level EUT dBuV	Sig Gen Level Sub'n Ant dBm	Rec'vr Level Sub'n Ant dBuV	Sub'n Ant Gain dBi	ERP dBm	Limit	Margin dB	Note
1 1 1	1 1 1	1 1 1	817.000 817.000 824.000 824.000	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	V H V H	107.8 103.8 108.1 103.7	-16.5 -16.5 -16.5 -16.5	48.9 48.7 48.6 48.8	-6.1 -6.1 -6.1	36.3 32.5 36.9 32.3			
1 1 1	1 1 1	1 1 1	862.000 862.000 869.000 869.000	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	V Н V Н	106.8 101.1 106.2 101.0	-16.6 -16.6 -16.6 -16.6	47.5 48.0 47.4 48.2	-6.1 -6.1 -6.2 -6.2	36.6 30.3 35.9 29.9			
	Results Minimum Margin								N/A	dB				

PASS/FAIL

Notes

Car Kit

The results above are radiated measurements using the substitution method.

There are no specific limits in the standard for this test.

# | Report No: | R3110 | FCC ID: XX6-STP8080 / XX6-STP8280 | | Test No: | T4353 | Test Report | Page: | 32 of 121

## 4.13 Radiated Emissions - Transmit Spur - Standalone - 806MHz to 824MHz band

Factor Set 1: A19\_dbi\_11A - - -

Factor Set 2: ----Factor Set 3: ----

Test Equipment: R9 A24 A23 A19 SG16 PM6 PS10 PRE3 RFF15 RFF16 RFF17 RFF22

Substitution Emissions

Cubstituti	on_Ennissions			
Compan	<sup>Py:</sup> Sepura PLC		Product: STP8080/STP8280	
Date:	29/05/2012		Test Eng: Dave Smith	
Ports:				
Test:	90.210	using limits of	90.221(d)	
Ports:				

Test: using limits of

resi	using limits of													
Op Mode	Mod State	CF Set	Freq. MHz	Cable Sig Gen Level Cable	e Loss Rec'vr Level Cable	Ant Pol	Rec'vr Level EUT dBuV	Sig Gen Level Sub'n Ant dBm	Rec'vr Level Sub'n Ant dBuV	Sub'n Ant Gain dBi	ERP dBm	Limit	Margin dB	Note
1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	1634.000 1634.000 2451.000 4085.000 4085.000 1648.000 2472.000 2472.000 4120.000	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	V H V H V H V H V H	61.4 59.1 72.2 73.3 65.4 65.1 61.0 59.1 72.5 72.8 65.8 65.6	-19.2 -19.2 -21.5 -21.5 -25.1 -25.1 -19.2 -19.2 -21.6 -21.6 -25.3 -25.3	92.5 92.8 88.7 91.2 82.3 83.5 92.5 92.9 88.4 91.4 82.9 83.8	9.0 9.0 9.7 9.7 10.3 10.3 9.0 9.0 9.7 10.5 10.5	-41.3 -43.9 -28.2 -29.7 -31.8 -33.3 -41.8 -44.0 -27.8 -30.4 -32.0 -33.0	-13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	28.3 30.9 15.2 16.7 18.8 20.3 28.8 31.0 14.8 17.4 19.0 20.0	#1 #1 #1 #1 #2 #2 #2 #2
	Resul	ts		Minimur PASS/F		n			14.8 PASS	dB				

PASS/FAIL | F

Results of prescans shown in plots 29 to 40.

Standalone. 3m test distance. #1: Tx @ 817MHz, #2: Tx @824MHz

Lmits set at -13dBm.

# | Report No: | R3110 | FCC ID: XX6-STP8080 / XX6-STP8280 | | Test No: | T4353 | Test Report | Page: | 33 of 121

## 4.14 Radiated Emissions - Transmit Spur - Standalone - 851MHz to 869MHz band

Factor Set 1: A19\_dbi\_11A - - -

Factor Set 2: - - - - Factor Set 3: - - - -

Test Equipment: R9 A24 A23 A19 SG16 PM6 PS10 PRE3 RFF15 RFF16 RFF17 RFF22

using limits of

Substitution Emissions

Test:

Compar	<sup>ny:</sup> Sepura PLC		Product: STP8080/STP8280
Date:	29/05/2012		Test Eng: Dave Smith
Ports:			
Test:	90.210	using limits of	90.221(d)
Ports:			

				Cable										
Ор	Mod		Freq.	Sig Gen	Rec'vr	Ant	Rec'vr	Sig Gen	Rec'vr	Sub'n	ERP	Limit	Margin	Note
Mode	State	Set	MHz	Level	Level	Pol	Level	Level	Level	Ant				
				Cable	Cable		EUT	Sub'n	Sub'n	Gain				
				I.D.	ID		ID V	Ant	Ant	ID.	l In		ID	
				dBm	dBm		dBuV	dBm	dBuV	dBi	dBm	dBm	dB	
1	1	1	1149.330	0.0	0.0	V	32.1	-17.6	58.5	6.8	-37.2	-13.0	24.2	#1
1	1	1	1149.330	0.0	0.0	H	27.5	-17.6	55.7	6.8	-39.1	-13.0	26.1	#1
1	1	1	2586.000	0.0	0.0	V	70.0	-21.8	88.6	9.9	-30.5	-13.0	17.5	#1
1	1	1	2586.000	0.0	0.0	Н	72.3	-21.8	90.8	9.9	-30.4	-13.0	17.4	#1
1	1	1	3448.000	0.0	0.0	V	44.8	-24.9	83.1	10.0	-53.2	-13.0	40.2	#1
1	1	1	3448.000	0.0	0.0	Н	46.8	-24.9	85.3	10.0	-53.5	-13.0	40.5	#1
1	1	1	1158.664	0.0	0.0	v	38.9	-17.6	58.2	6.9	-30.1	-13.0	17.1	#2
1	1	1	1158.664	0.0	0.0	н	30.9	-17.6	56.0	6.9	-35.8	-13.0	22.8	#2
1	1	1	2607.000	0.0	0.0	l v l	68.7	-21.8	88.2	9.9	-31.4	-13.0	18.4	#2
1	1	1	2607.000	0.0	0.0	н	69.2	-21.8	90.9	9.9	-33.6	-13.0	20.6	#2
1	1	1	3476.000	0.0	0.0	l v l	46.8	-24.5	83.9	10.0	-51.5	-13.0	38.5	#2
1	1	1	3476.000	0.0	0.0	н	46.8	-24.5	85.6	10.0	-53.2	-13.0	40.2	#2
		ı												
	Resul	ts		Minimur	n Margi	n			17.1	dB				
PASS/FAIL									PASS					

Notes

Results of prescans shown in plots 29 to 40.

Standalone. 3m test distance. #1: Tx @ 862MHz, #2: Tx @869MHz

Lmits set at -13dBm.

# | Report No: | R3110 | FCC ID: XX6-STP8080 / XX6-STP8280 | | Test No: | T4353 | Test Report | Page: | 34 of 121

## 4.15 Radiated Emissions - Transmit Spurious - RSM - 806MHz to 824MHz band

Factor Set 1: A19\_dbi\_11A - - -

Factor Set 2: - - - - Factor Set 3: - - - -

Test Equipment: R9 A24 A23 A19 SG16 PM6 PS10 PRE3 RFF15 RFF16 RFF17 RFF22

Substitution Emissions

Cubotituti	JII_EITHSSIOHS			
Compan	<sup>y:</sup> Sepura PLC		Product: STP8080/STP8280	
Date:	29/05/2012		Test Eng: Dave Smith	
Ports:				
Test:	90.210	using limits of	90.221(d)	
Ports:	_	_		·
Test:		using limits of		

Op Mode	Mod State		Freq. MHz	Cable Sig Gen Level Cable dBm	Loss Rec'vr Level Cable	Ant Pol	Rec'vr Level EUT dBuV	Sig Gen Level Sub'n Ant dBm	Rec'vr Level Sub'n Ant dBuV	Sub'n Ant Gain dBi	ERP	Limit	Margin dB	Note
1 1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1634.000 1634.000 2451.000 2451.000 1648.000 2472.000 2472.000	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	V H V H V H	73.8 67.0 63.8 67.2 70.6 67.8 63.2 60.6	-19.2 -19.2 -21.5 -21.5 -19.2 -19.2 -21.6 -21.6	92.5 92.8 88.7 91.2 92.5 92.9 88.4 91.4	9.0 9.0 9.7 9.7 9.0 9.7 9.7	-28.9 -36.0 -36.7 -35.8 -32.2 -35.3 -37.1 -42.6	-13.0 -13.0 -13.0 -13.0 -13.0 -13.0 -13.0	15.9 23.0 23.7 22.8 19.2 22.3 24.1 29.6	#1 #1 #1 #2 #2 #2
Results Minimum Margin PASS/FAIL						<u> </u>			15.9 PASS	dB				

Notes

Results of prescans shown in plots 41 to 52.

RSM. 3m test distance. #1: Tx @ 817MHz, #2: Tx @824MHz Lmits set at -13dBm.

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	35 of 121

# 4.16 Radiated Emissions - Transmit Spurious - RSM - 851MHz to 869MHz band

Factor Set 1: A19\_dbi\_11A - - -

Factor Set 2: ----Factor Set 3: ----

Test Equipment: R9 A24 A23 A19 SG16 PM6 PS10 PRE3 RFF15 RFF16 RFF17 RFF22

Substitution\_Emissions

	Company: Sepura PLC Product: STP8080/STP8280															
Date			05/2012					Test Eng:								
Ports			<del></del>													
	Test: 90.210 using limits of							90.221(d)								
Ports: Test: using limits of																
Test	:			u	sing limi	ts of										
Ор	Mod	CF	Freq.	Cable Sig Gen	Rec'vr	Ant	Rec'vr	Sig Gen	Rec'vr	Sub'n	ERP	Limit	Margin	Note		
Mode	State	Set	MHz	Level Cable	Level Cable	Pol	Level EUT	Level Sub'n Ant	Level Sub'n Ant	Ant Gain						
				dBm	dBm		dBuV	dBm	dBuV	dBi	dBm	dBm	dB			
1 1	1	1	1724.000	0.0	0.0	V	66.0	-19.5	91.0 90.7	9.0 9.0	-35.6	-13.0 -13.0	22.6 26.2	#1		
'	ı	1	1724.000	0.0	0.0	Н	62.0	-19.5	90.7	9.0	-39.2	-13.0	26.2	#1		
1	1	1	1738.000	0.0	0.0	V	64.0	-19.5	90.2	9.0	-36.7	-13.0	23.7	#2		
1	1	1	1738.000	0.0	0.0	Н	59.3	-19.5	89.6	9.0	-40.8	-13.0	27.8	#2		
Results Minimum Margin 22.6 dB PASS/FAIL PASS																

Notes

Results of prescans shown in plots 41 to 52.

RSM. 3m test distance. #1: Tx @ 862MHz, #2: Tx @869MHz Lmits set at -13dBm.

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	36 of 121

# 4.17 Radiated Emissions - Transmit Spurious - Car Kit

Factor Set 1: A19\_dbi\_11A - - -

Factor Set 2: - - - - Factor Set 3: - - - -

Test Equipment: R9 A24 A23 A19 SG16 PM6 PS10 PRE3 RFF15 RFF16 RFF17 RFF22

Substitution Emissions

Company: Sepura PLC Product: STP8080/STP8280														
Date			05/2012					Test Eng:	Dave S	Smith				
Port:		00	010					00 004	<i>(</i> )					
Test Ports		90.	210	u	sing limi	ts of	-	90.221	(d)	_				
Test				u	sing limi	ts of	;							
Op Mode	Mod State		Freq. MHz	Cable Sig Gen Level Cable		Ant Pol	Rec'vr Level EUT dBuV	Sig Gen Level Sub'n Ant dBm	Rec'vr Level Sub'n Ant dBuV	Sub'n Ant Gain dBi	ERP dBm	Limit dBm	Margin dB	Note
1	1	1 1	3476.000 3476.000	0.0	0.0	V H	44.3 49.2	-24.5 -24.5	83.9 85.6	10.0 10.0	-54.0 -50.8	-13.0 -13.0	41.0 37.8	#1 #1
	Results Minimum Margin PASS/FAIL								37.8 PASS	dB				
							Not							

Notes

Results of prescans shown in plots 53 to 64.

Car Kit. 3m test distance. #1: Tx @ 869MHz

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	37 of 121

## 4.18 Radiated Emissions - Receive Mode - Standalone - below 1GHz

Factor Set 1: A5\_FS\_10C CBL015\_11A --

Factor Set 2: ----Factor Set 3: Test Equipment: R4 A5

		nissions											
Com	npany:	Sepu	ıra P	LC				Prod	3		/STP8280		
Date Port:		20/06	5/201	2				Test	Eng:	ave Smith	1		
Test	·:	ANSI	C63	.4:200	03 using	limits	of	FCC	<u>_</u> B				
Port: Test					using	limits	s of						
Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
	862	2MHz F	Rx cha	nnel									
66	1	0	3	1	931.250	V	-5.2	31.0		25.8	46.0	20.2	#1
66	1 860	O   OMHz F	3 Ovicha	1 nnel	931.250	Н	0.5	31.0		31.5	46.0	14.5	
66	1	0	3	1	938.250	v	1.2	31.5		32.7	46.0	13.3	#1
66	1	0	3	1	938.250	Н	-8.0	31.5		23.5	46.0	22.5	#1
	Resul	ts					Minimu	m Marc	ain.		13.3	dB	
	Resul	13					PASS/F		J		PASS	<u> </u>	
No	tes					Comr	ments a	nd Obse	ervation	ns			
#	:1	Results of scans shown in plots 65 to 66. Standalone  Measured with 10kHz average detector because of high ambient. Measurements in screened room show less than 2dB difference between 120kHz Quasi Peak reading and 10kHz Average reading for this emission All other measurements made with 120kHz bandwidth Quasi Peak detector.											

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	38 of 121

## 4.19 Radiated Emissions - Receive Mode - Standalone - above 1GHz

A23\_3m\_10A CBL049\_11A PRE3\_11A RFF22\_11A Factor Set 1:

1 m cable

Factor Set 2: ----Factor Set 3: Test Equipment: R9 A23 PRE3

		Sepu		) C				Prod	luct: c	TDOOO	/STP8280		
Date		31/05						Test		ave Smitl			
Ports		3 1/0	<i>3120</i> 1						g	ave Simil	1		
Test		ANSI	C63	.4:20	03 using	limits	s of	FCC	_B				
Ports Test					using	limita	of.						
7031	•				using	minus	S UI						
Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
	862	2MHz F	Rx cha	ınnel									
69	Rx	1	3	1	5587.450	V	44.9	1.6		46.5	54.0	7.5	PK
69	Rx	1	3	1	5587.450	Н	47.8	1.6		49.4	74.0	24.6	PK
69	Rx	1	3	1	5587.450	Н	42.1	1.6		43.7	54.0	10.3	AV
69	Rx	1	3	1	6518.750	V	42.7	2.9		45.6	54.0	8.4	PK
69	Rx 869	1   9MHz F	3 Ovicha	1 nnel	6518.750	Н	41.7	2.9		44.6	54.0	9.4	PK
69	Rx	1 1	3	1 1	5629.513	v	44.8	1.7		46.4	54.0	7.6	PK
69	Rx	1	3	1	5629.513	Н	46.9	1.7		48.6	74.0	25.4	PK
69	Rx	1	3	1	5629.513	Н	42.1	1.7		43.8	54.0	10.2	PK
69	Rx	1	3	1	6567.750	V	43.0	3.1		46.0	54.0	8.0	PK
69	Rx	1	3	1	6567.750	H	42.1	3.1		45.1	54.0	8.9	PK
	Resul	ts					Minimu	`	gin			dB	
						_	PASS/F				PASS		
No	tes					Com	ments a	nd Obse	ervation	ns			
			Resu	lts of	scans show	n in p	olots 67	to 68.					
			Whei readi	ng is ı	ık measure recorded - i	n this	case th	ne avera	age limi	it is show.	verage limit Otherwise ainst the cor	separate	

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	39 of 121

## 4.20 Radiated Emissions - Receive Mode - RSM - below 1GHz

Factor Set 1: A5\_FS\_10C CBL015\_11A --

Factor Set 2: Factor Set 3: Test Equipment: R4 A5

Radia	ted_En	nissions	s										
Con	npany:	Sepu	ıra P	LC				Prod	3		/STP8280		
Date Port		20/06	5/201	2				Test	Eng:	ave Smith	<u>1</u>		
Test		ANSI	C63	.4:20	03 using	limits	s of	FCC	C_B				
Port. Test					ucina	limite	o of						
1631	•				using	limits	S 01						
Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
	963	2MHz F	Dv. cha	nnol									
71	1	0	3	1	931.250	v	-5.3	31.0		25.7	46.0	20.3	#1
71	1	0	3	1	931.250	н	-13.1	31.0		17.9	46.0	28.1	
71	869	MHz F	Rx cha	innel   1	938.250	v	1.2	31.5		32.7	46.0	13.3	#1
71	1	0	3	1	938.250	H	-9.1	31.5		22.4	46.0	23.6	#1
	Resul	ts					Minimu		<b>y</b> in		13.3	dB	
							PASS/F				PASS		
No	tes					Com	ments aı	nd Obse	ervation	ns			
Results of scans shown in plots 69 and 70. RSM  #1 Measured with 10kHz average detector because of high ambient. Measurements in screened room show less than 2dB difference between 120kHz Quasi Peak reading and 10kHz Average reading for this emission All other measurements made with 120kHz bandwidth Quasi Peak detector.										1			

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	40 of 121

## 4.21 Radiated Emissions - Receive Mode - RSM - above 1GHz

Factor Set 1: A23\_3m\_10A CBL049\_11A PRE3\_11A RFF22\_11A 1 m cable

Factor Set 2: -- -Factor Set 3: -- -Test Equipment: R9 A23 PRE3

		nissions							_				
Con	pany:	Sepu	ıra P	LC				Prod	<i>luct:</i> S	TP8080	/STP8280		
Date		31/05	5/201	2				Test	Eng:	ave Smitl	<u> </u>		
Port   Test		ANSI	C62	4.20	03 using	limita	of.	FCC	` D				
Port		ANSI	C03	.4.20	using	minus	S UI	FCC	<u>_</u> D				
Test	:				using	limits	s of						
				1_	1 _	1 .	1 _	1				1	
Plot	Op Mode	Mod	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level	Corr'n Factor	Corr'n Factor	Total Level	Limit FCC_B	Margin FCC_B	Notes
	IVIOGE	State	""	Jet	IVIIIZ	101	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
	863	2MHz F	2v cha	nnel									
73	Rx	1 1	3	1 1	5587.450	v	45.7	1.6		47.3	54.0	6.7	PK
73	Rx	1	3	1	5587.450	н	46.4	1.6		48.0	54.0	6.0	PK
73	Rx	1	3	1	5587.450	Н	41.8	1.6		43.4	54.0	10.6	AV
73	Rx	1	3	1	6518.750	V	43.2	2.9		46.2	54.0	7.8	PK
73	Rx	1   9MHz F	3	1	6518.750	Н	43.8	2.9		46.7	54.0	7.3	PK
73	Rx	/ 1	3	11111ei   1	5629.513	v	45.9	1.7		47.6	54.0	6.4	PK
73	Rx	1 1	3	1	5629.513	H	46.6	1.7		48.3	54.0	5.7	PK
73	Rx	1	3	1	5629.513	н	42.1	1.7		43.8	54.0	10.2	AV
73	Rx	1	3	1	6567.750	V	42.9	3.1		46.0	54.0	8.0	PK
73	Rx	1	3	1	6567.750	H	43.6	3.1		46.7	54.0	7.3	PK
	l					l							
	Resul	ts					Minimu PASS/F		gin		5.7 PASS	dB	
No	tes					Com	ments a	nd Obse	ervation	ns			
			Resu	Its of	scans show	vn in ı	olots 71	and 72	<u> </u>				
		l	RSM		.1			<b>-</b> .	-1-1-1	1			-1-
			Where peak measurements were comfortably below the average limit only the peak reading is recorded - in this case the average limit is show. Otherwise separate										
											ainst the cor		limits.
		'	-									. 3	

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	41 of 121

## 4.22 Radiated Emissions - Receive Mode- Car Kit - below 1GHz

Factor Set 1: A5\_FS\_10C CBL015\_11A --

Factor Set 2: - - - Factor Set 3: - - - - Test Equipment: R4 A5

		nissions						Dras	lunt				
Con		Sepu						Prod	3		/STP8280		
Date		20/06	5/201	2				Test	Eng:	ave Smitl	<u> </u>		
Port: Test		ANSI	C63	.4:200	03 using	limits	s of	FCC	C_B				
Port:													
Test	<u> </u>				using	limits	S OT						
Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
	862	MHz F		nnel									
74	1	0	3	1	35.630	V	13.3	16.0		29.3	40.0	10.7	
74 74	1	0	3	1	35.630	H	8.0	16.0		24.0	40.0	16.0	
74 74	1	0 0	3 3	1 1	118.700 118.700	V H	6.6 3.4	13.3		19.9 16.7	43.5 43.5	23.6 26.8	
75	1	0	3	1	366.189	V	6.1	18.0		24.1	46.0	21.9	
75	1	0	3	1	366.189	H	7.6	18.0		25.6	46.0	20.4	
75	1	0	3	1	640.000	V	3.2	25.3		28.5	46.0	17.5	
75	1	0	3	1	640.000	Н	2.0	25.3		27.3	46.0	18.7	
	869	MHz F	Rx cha	nnel									
75	1	0	3	1	931.250	V	-6.0	31.0		25.0	46.0	21.0	#1
75	1	0	3	1	931.250	Н	3.3	31.0		34.3	46.0	11.7	
75 	1	0	3	1	938.250	V	-4.3	31.5		27.2	46.0	18.8	#1
75	1	0	3	1	938.250	Н	1.0	31.5		32.5	46.0	13.5	#1
	Resul	ts					Minimu	m Marc			10.7	dB	
							PASS/F				PASS		
No	tes					Comr	ments a	nd Obse	ervation	ns			
#	1		Car k Meas Meas betw	Kit sured surem reen 1		z aver eened asi Pe	age det room sl ak readi	ector b how les	ecause s than 10kHz	2dB differ Average			ı

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	42 of 121

## 4.23 Radiated Emissions - Receive Mode - Car Kit - above 1GHz

Factor Set 1: A23\_3m\_10A CBL049\_11A PRE3\_11A RFF22\_11A 1 m cable

Factor Set 2: -- -Factor Set 3: -- -Test Equipment: R9 A23 PRE3

		nission							_					
Con	ipany:	Sepu	ıra P	LC				Prod	luct: S	TP8080	/STP8280			
Date		31/0	5/201	2				Test	Eng:	ave Smit	n			
Port. Test		A NICI	C/ 2	4.20	00	 	<b>-</b>	FCC	` D					
Port		ANSI	<u> </u>	.4:20	03 using	limits	S 01	FCC	<u>,_</u> B					
Test					using	limits	s of							
Plot	Ор	Mod	Dist		·	Ant	Rec.		Corr'n	Total	Limit	Margin	Notes	
	Mode	State	m	Set	MHz	Pol	Level	Factor	Factor	Level	FCC_B	FCC_B		
							dBuV	dB/m	dB	dBuV/m	dBuV/m	dB		
	1	22MHz Rx channel											PK	
77 77	Rx Rx		3	1	5587.450	H	45.1	1.6		46.7	54.0 54.0	7.3	PK	
77	Rx	1 1	3	1	6518.750	v	42.0	2.9		45.0	54.0	9.0	PK	
77	Rx	1	3	1	6518.750	Н	43.3	2.9		46.2	54.0	7.8	PK	
	1	B69MHz Rx channel										_		
77	Rx	1	3	1	5629.513	V	43.7	1.7		45.4	54.0	8.6	PK PK	
77 77	Rx Rx	1 1	3 3	1 1	5629.513 6567.750	H V	45.1 43.1	1.7 3.1		46.8 46.1	54.0 54.0	7.2 7.9	PK   PK	
77	Rx		3	1	6567.750	H	42.6	3.1		45.7	54.0	8.3	PK	
							l							
	Resu	lts					Minimu	m Marc	nin		7.2	dB		
							PASS/F		<b>,</b>		PASS			
No	tes					Comr	ments aı	nd Obse	ervation	ns			!	
			Results of scans shown in plots 75 and 76.											
			Car k	(it										
			Where peak measurements were comfortably below the average limit only the peak											
			readi	ng is	recorded - i	n this	case th	e avera	age limi	it is show	Otherwise	separate		
			peak	and a	iverage me	asure	ments v	vere ma	ade and	d show ag	ainst the cor	responding I	limits.	

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	43 of 121

## 4.24 Radiated Emissions - Receive Mode - STP8280 - below 1GHz

Factor Set 1: A5\_FS\_10C CBL015\_11A --

Factor Set 2: ----Factor Set 3: Test Equipment: R4 A5

		nissions											
Com	pany:	Sepu	ıra P	LC				Prod	3		/STP8280		
Date Port:		20/06	5/201	2				Test	Eng:	ave Smith	1		
Test	:	ANSI	C63	.4:200	03 using	limits	of	FCC	<u>_</u> B				
Port: Test					using	limits	of						
Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
	862	2MHz F	Rx cha	nnel									
79	1	0	3	1	931.250	v	-7.6	31.0		23.4	46.0	22.6	#1
79	1	0	3	1	931.250	Н	1.2	31.0		32.2	46.0	13.8	
79	1	MHz F	xx cha	nnei   1	938.250	v	2.2	31.5		33.7	46.0	12.3	#1
79	1	0	3	1	938.250	н	-7.0	31.5		24.5	46.0	21.5	#1
	Resul	ts					Minimu	m Marc	nin.		12.3	dB	
	itesui						PASS/F				PASS	<u>ш</u>	
No	tes		Comments and Observations										
#	1		Results of scans shown in plots 77 and 78.  STP8280  Measured with 10kHz average detector because of high ambient.  Measurements in screened room show less than 2dB difference between 120kHz Quasi Peak reading and 10kHz Average reading for this emission All other measurements made with 120kHz bandwidth Quasi Peak detector.										

#### Report No: R3110 FCC ID: XX6-STP8080 / XX6-STP8280 Issue No: 1 /Î\ dB Test No: Page: **Test Report** T4353 44 of 121

#### 4.25 Radiated Emissions - Receive Mode - STP8280 - above 1GHz - Vertical

A23\_3m\_10A CBL049\_11A PRE3\_11A RFF22\_11A Factor Set 1:

1 m cable

Factor Set 2: Factor Set 3: Test Equipment: R9 A23 PRE3

		Sepu		) C				Prod	luct: C	TPRORO	/STP8280		
Date		31/05						Test		ave Smith			
Port:		01700	<i>51201</i>						<u> </u>	ave emin	•		
Test		ANSI	C63	.4:20	03 using	limits	s of	FCC	<u>_B</u>				
Ports Test					uoina	linaita	o o f						
1631					using	nimits	S OI						
Plot	Op Mode	Mod State	Dist m	Fact Set	Freq. MHz	Ant Pol	Rec. Level dBuV	Corr'n Factor dB/m	Corr'n Factor dB	Total Level dBuV/m	Limit FCC_B dBuV/m	Margin FCC_B dB	Notes
	862	2MHz F	Rx cha	ınnel									
81	Rx	1	3	1	5587.450	V	48.7	1.6		50.3	74.0	23.7	PK
81	Rx	1	3	1	5587.450	V	46.5	1.6		48.1	54.0	5.9	AV
81	Rx	1	3	1	6518.750	V	42.2	2.9		45.1	74.0	28.9	PK
81	Rx	1	3	1	6518.750	V	38.5	2.9		41.4	54.0	12.6	AV
81 81	Rx Rx	1 1	3 3	1 1	7450.000 7450.000	V V	39.9 31.6	5.8 5.8		45.7 37.4	74.0 54.0	28.3 16.6	PK AV
01		 9MHz F		1	7450.000	\ \	31.0	5.6		37.4	54.0	10.0	^v
81	Rx	1 1	3	1	5629.513	v	48.9	1.7		50.6	74.0	23.4	PK
81	Rx	1	3	1	5629.513	V	46.7	1.7		48.4	54.0	5.6	AV
81	Rx	1	3	1	6567.750	V	43.9	3.1		47.0	74.0	27.0	PK
81	Rx	1	3	1	6567.750	V	40.0	3.1		43.0	54.0	11.0	AV
81 81	Rx Rx	1 1	3	1 1	7506.000 7506.000	V V	40.1 32.3	5.7 5.7		45.8 38.0	74.0 54.0	28.2 16.0	PK AV
	Resul	ts					Minimu PASS/F	`	jin		5.6 PASS	dB	
No	tes					Com	ments a	nd Obse	ervation	ns			
			STP 8	8280 re pea		ments	s were o	comfort	ably be		verage limit n. Otherwis		eak

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	45 of 121

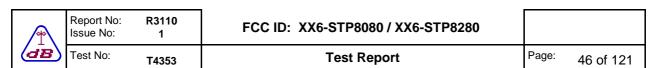
## 4.26 Radiated Emissions - Receive Mode - STP8280 - above 1GHz - Horizontal

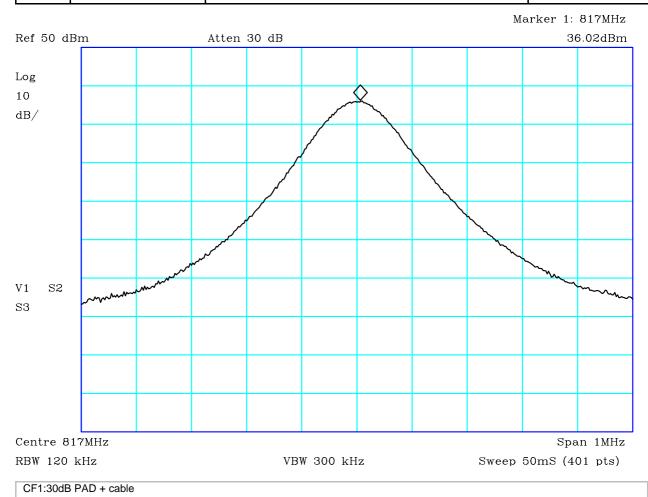
A23\_3m\_10A CBL049\_11A PRE3\_11A RFF22\_11A Factor Set 1:

1 m cable

Factor Set 2: Factor Set 3: Test Equipment: R9 A23 PRE3

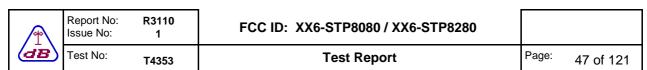
		nissions						Proa	luct: -				
I		Sepu							3		/STP8280		
Date Ports		31/05	5/201	2				Test	Eng:	ave Smith	1		
Test		ANSI	C63	4:20	03 using	limits	of	FCC	_B				
Ports													
Test	:				using	limits	S Of						
Plot	Ор	Mod	Dist	Fact	Freq.	Ant	Rec.	Corr'n	Corr'n	Total	Limit	Margin	Notes
	Mode	State	m	Set	MHz	Pol	Level dBuV	Factor dB/m	Factor dB	Level dBuV/m	FCC_B dBuV/m	FCC_B dB	
	862	MHz F	Rx cha	nnel									
81	Rx	1	3	1	5587.450	H	48.1	1.6		49.7	74.0	24.3	PK AV
81 81	Rx Rx	1	3 3	1 1	5587.450 6518.750	H H	45.8 44.1	1.6 2.9		47.4 47.0	54.0 74.0	6.6 27.0	PK
81	Rx	1	3	1	6518.750	н	39.8	2.9		42.8	54.0	11.2	AV
81	Rx	1	3	1	7450.000	Н	43.9	5.8		49.7	74.0	24.3	PK
81	Rx	1	3	1	7450.000	Н	38.8	5.8		44.6	54.0	9.4	AV
81	Rx	MHz F	ex cha	innei   1	5629.513	Н	48.0	1.7		49.7	74.0	24.3	PK
81	Rx	1	3	1	5629.513	H	45.2	1.7		46.9	54.0	7.1	AV
81	Rx	1	3	1	6567.750	Н	43.5	3.1		46.6	74.0	27.4	PK
81	Rx	1	3	1	6567.750	Н	39.1	3.1		42.2	54.0	11.8	AV
81 81	Rx Rx	1	3 3	1 1	7506.000 7506.000	H H	44.0 39.0	5.7 5.7		49.7 44.8	74.0 54.0	24.3 9.2	PK AV
		•	Ü		7000.000		07.0	0.,		11.0	01.0	7.2	
	Resul	ts					Minimu PASS/F		jin		6.6 PASS	dB	
No	tes					Comr	nents a		ervation	ns			
			Resul	ts of	scans show	/n in p	olots 79	and 80					
			STP	8280									
			Wher	e pea								only the pe	ak
				_					•		n. Otherwis	e separate orresponding	ulimite
			peak	anu a	iverage iile	asui e	ments V	vere illa	aut allo	i shown a	yanısı ine Ci	วเ เ ธอคดเ เตเกิดี	j iii i ii i i i 5.

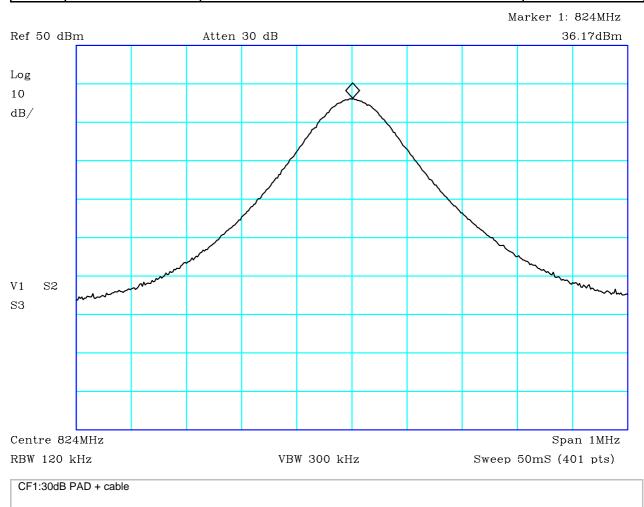




## PLOT 1 Conducted Antenna Output Power (817MHz)

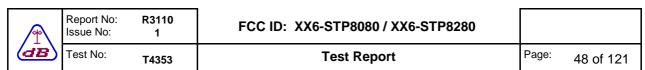
Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:			Limit2:		
Limit3:			Limit4:		
	red with power r	meter): 33.09 dBm	n		
Facility:	Anech_2			Mode:	1
				Modification State:	1
		File:	H2506782		

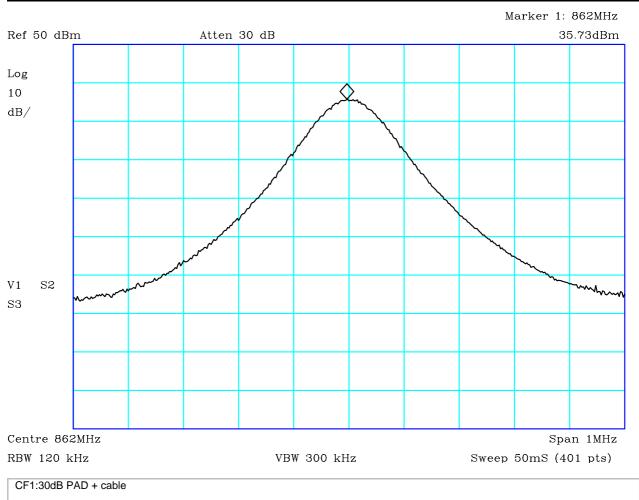




## PLOT 2 Conducted Antenna Output Power (824MHz)

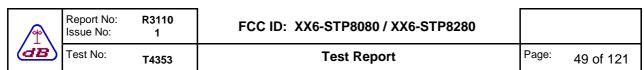
Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:			Limit2:		
Limit3:			Limit4:		
	red with power i	meter): 33.08 dBm			
Facility:	Anech_2			Mode:	1
				Modification State:	1
		File: I	H2506784		

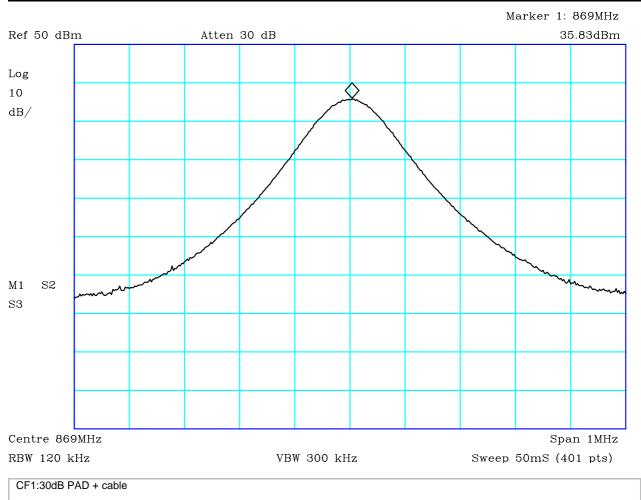




## PLOT 3 Conducted Antenna Output Power (862MHz)

Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:			Limit2:		
Limit3:			Limit4:		
	red with power i	meter): 33.09 dBn	n		
Facility:	Anech_2			Mode:	1
				Modification State:	1
		File:	H2506789		

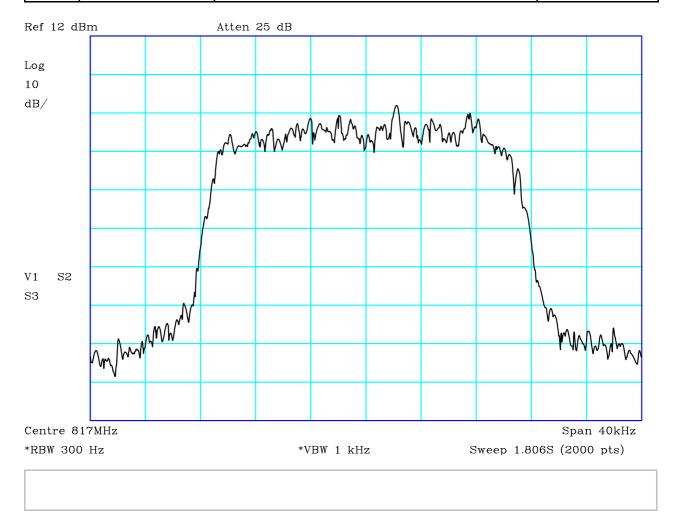




## PLOT 4 Conducted Antenna Output Power (869MHz)

Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:			Limit2:		
Limit3:			Limit4:		
	red with power i	meter): 33.06 dBm			
Facility:	Anech_2			Mode:	1
		E.,	11050077D	Modification State:	1
		File:	H250677B		

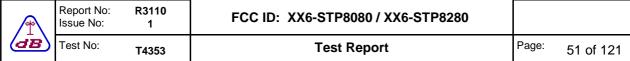
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
(dB)	Test No:	T4353	Test Report	Page:	50 of 121

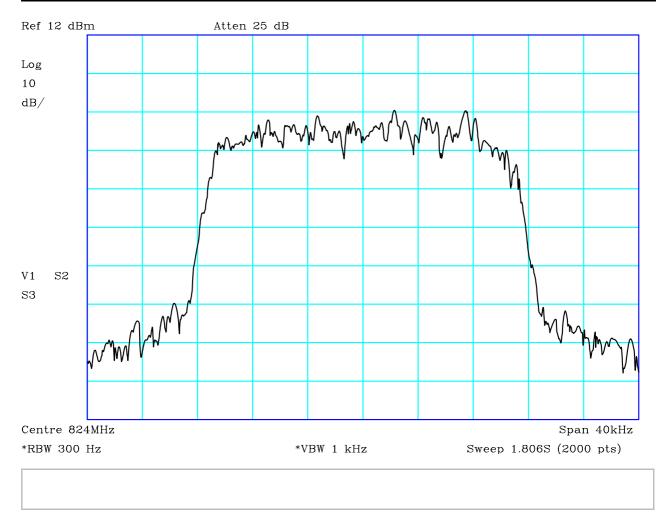


# PLOT 5 Occupied Bandwidth (817MHz)

Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:			Limit2:		
Limit3:			Limit4:		
		urement: 20.97kH:	z		
Facility:	Environ			Mode:	1
		File:	H25255E5	Modification State:	1

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6
dB	Test No:	T4353	Test Report

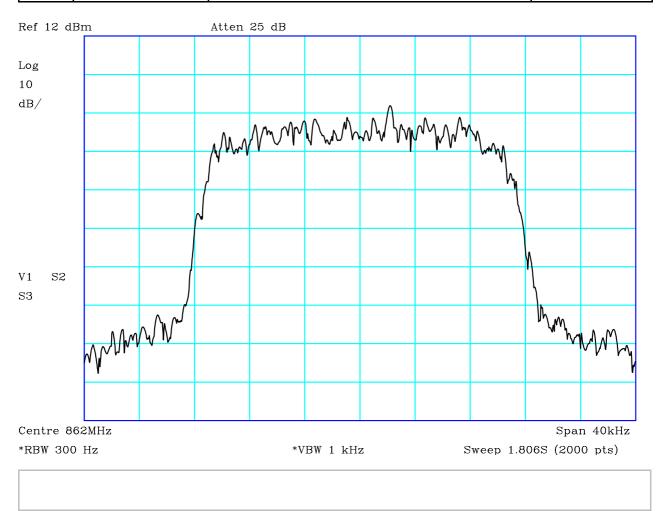




# PLOT 6 Occupied Bandwidth (824MHz)

Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:			Limit2:		
Limit3:			Limit4:		
		urement: 21.01kH:	Z		
Facility:	Environ			Mode:	1
		File:	H25255EA	Modification State:	1

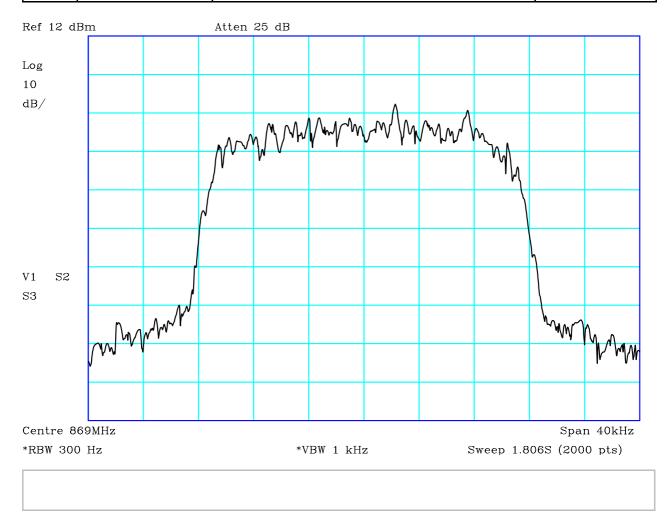
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	52 of 121



# PLOT 7 Occupied Bandwidth (862MHz)

Company:	Sepura		Product:	STP8080				
Date:	07/06/2012		Test Eng:	Dave Smith				
Method:	FCC Part 90		Method:					
Limit1:			Limit2:					
Limit3:			Limit4:					
862MHz 99% Occupied bandwidth measurement: 21.03kHz								
Facility:	Environ			Mode:	1			
				Modification State:	1			
		File:	H25255F3					

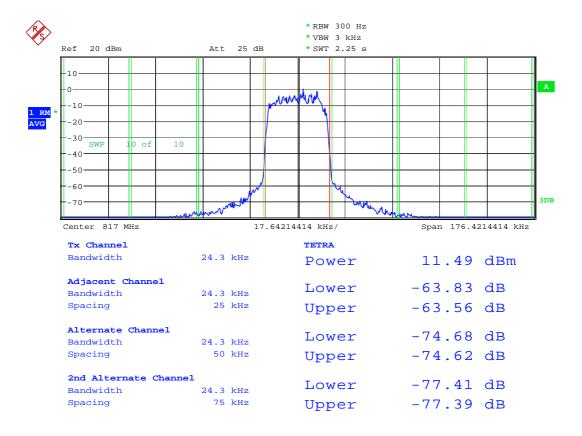
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
(dB)	Test No:	T4353	Test Report	Page:	53 of 121



# PLOT 8 Occupied Bandwidth (869MHz)

Company:	Sepura		Product:	STP8080			
Date:	07/06/2012		Test Eng:	Dave Smith			
Method:	FCC Part 90		Method:				
Limit1:			Limit2:				
Limit3:			Limit4:				
869MHz 99% Occupied bandwidth measurement: 21.05kHz							
Facility:	Environ			Mode: 1 Modification State: 1			
		File:	H25255D8	ivioumication State.			

/T\	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	54 of 12

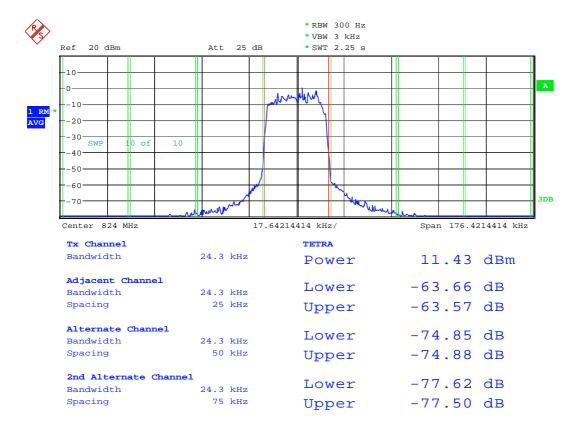


Date: 12.JUN.2012 13:29:33

PLOT 9 Adjacent Channel Power (817MHz)

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280	
(dB	Test No:	T4353	Test Report	Page:

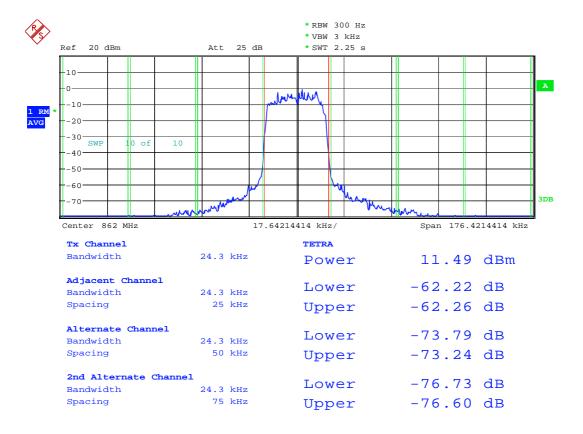
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Date: 12.JUN.2012 13:30:14

PLOT 10 Adjacent Channel Power (824MHz)

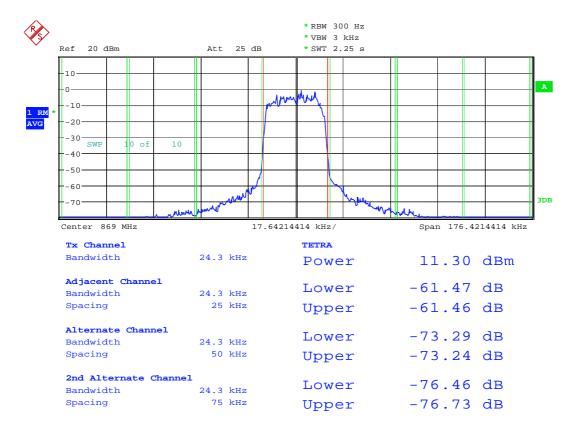
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	56 of 121



Date: 12.JUN.2012 13:31:34

PLOT 11 Adjacent Channel Power (862MHz)

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	57 of 121



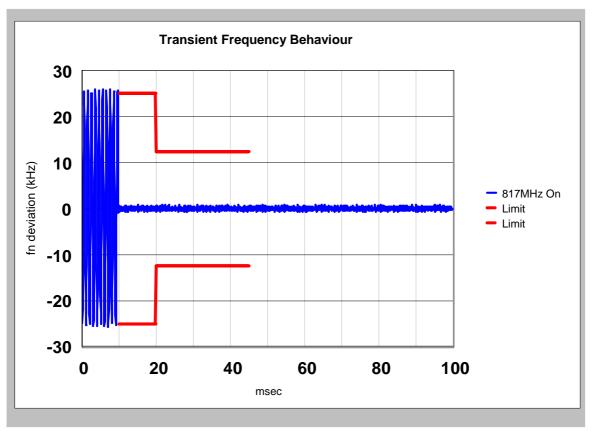
Date: 12.JUN.2012 13:32:13

PLOT 12 Adjacent Channel Power (869MHz)

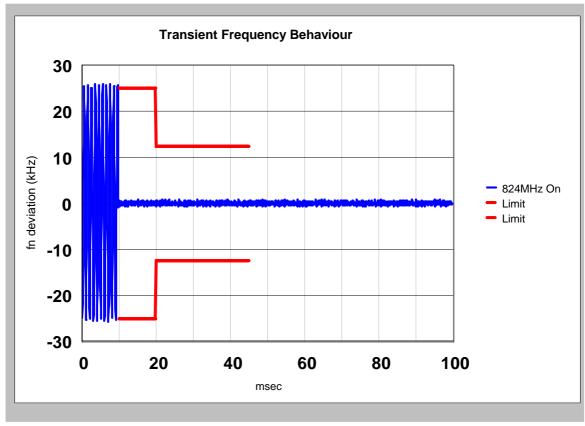
	Report No: Issue No:	R3110 1	FCC ID: XX
dB	Test No:	T4353	

 FCC ID: XX6-STP8080 / XX6-STP8280

 Test Report
 Page: 58 of 121



PLOT 13 Transient Frequency - 817MHz - On



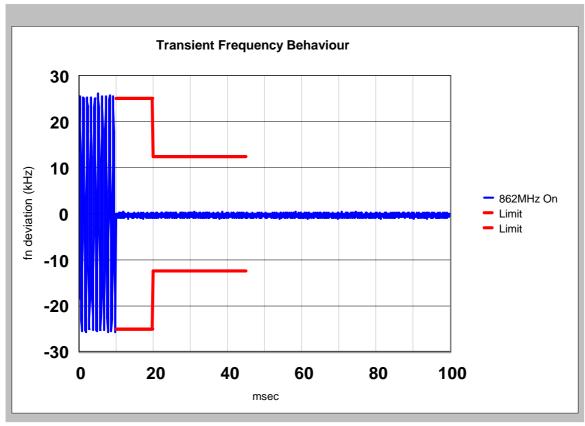
PLOT 14 Transient Frequency - 824MHz - On

FCC ID: XX6-STP8080 / XX6-STP8280

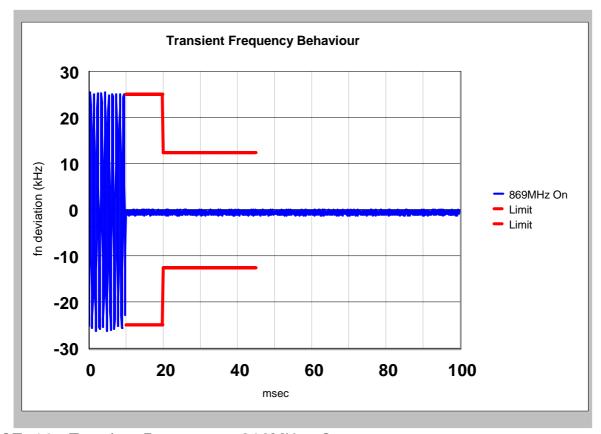
**Test Report** 

Page:

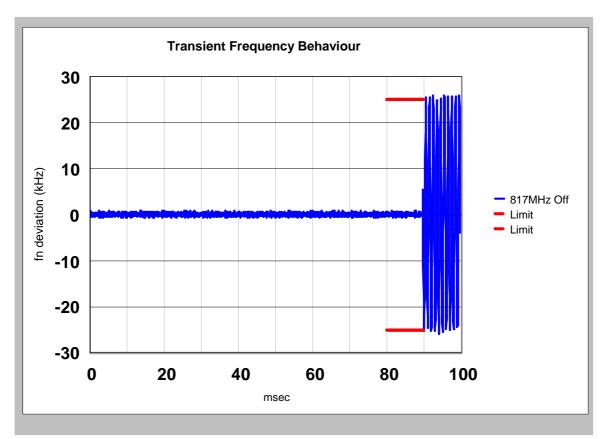
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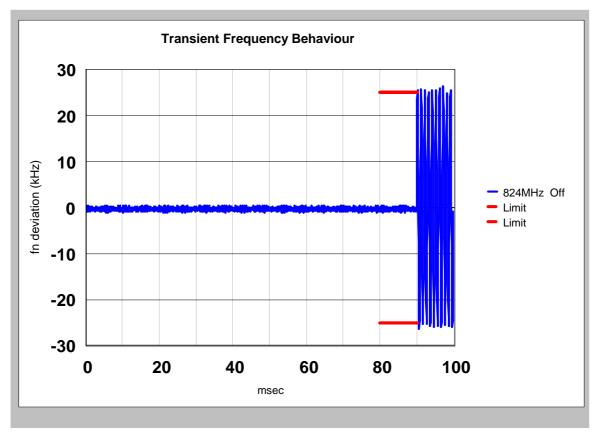
PLOT 15 Transient Frequency - 862MHz - On



PLOT 16 Transient Frequency - 869MHz - On

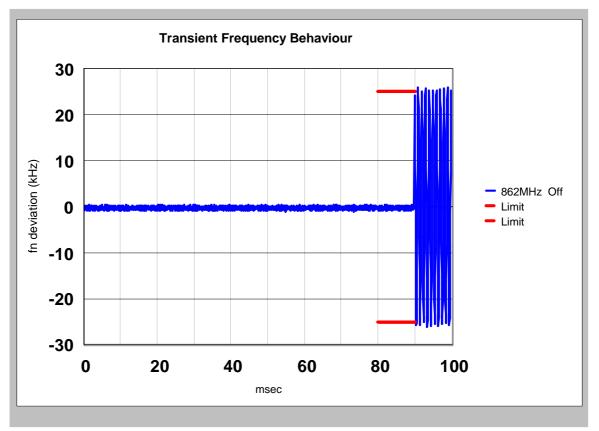


PLOT 17 Transient Frequency - 817MHz - Off



PLOT 18 Transient Frequency - 824MHz - Off

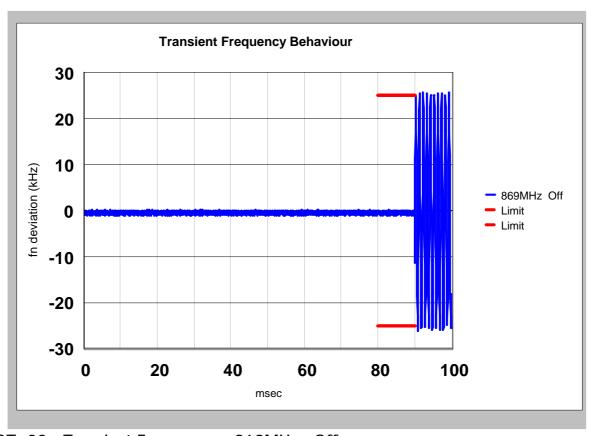
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280
(dB)	Test No:	T42E2	Test Report



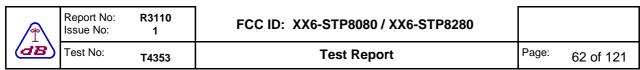
Page:

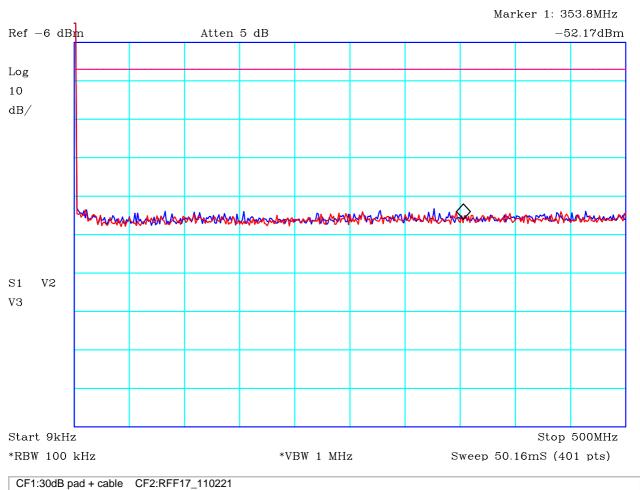
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PLOT 19 Transient Frequency - 862MHz - Off



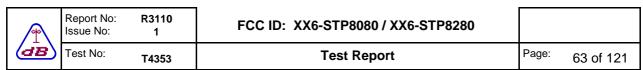
PLOT 20 Transient Frequency - 869MHz - Off

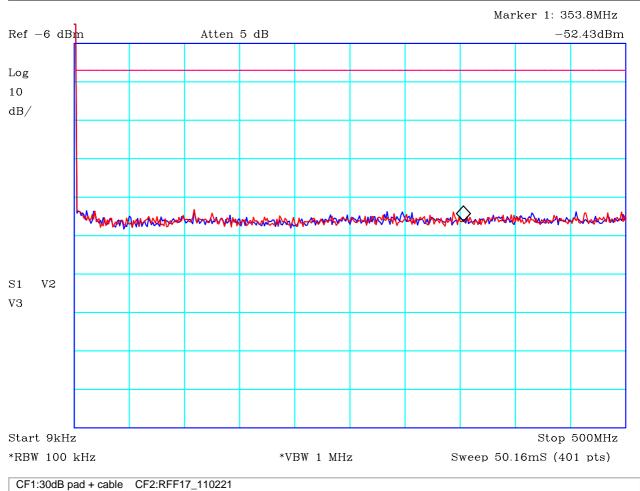




PLOT 21 Antenna Conducted Spur Emissions - 817 to 824 Band - 9kHz to 500MHz

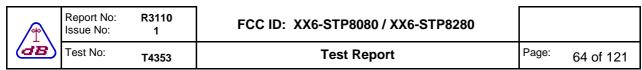
Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	-13dBm		Limit2:		
Limit3:			Limit4:		
Blue: 862MHz Red 869MHz Limit -13dBm					
Facility:	Environ	Height		Mode:	1
Distance		Polarisation		Modification State:	1
Angle		File:	H2521475		

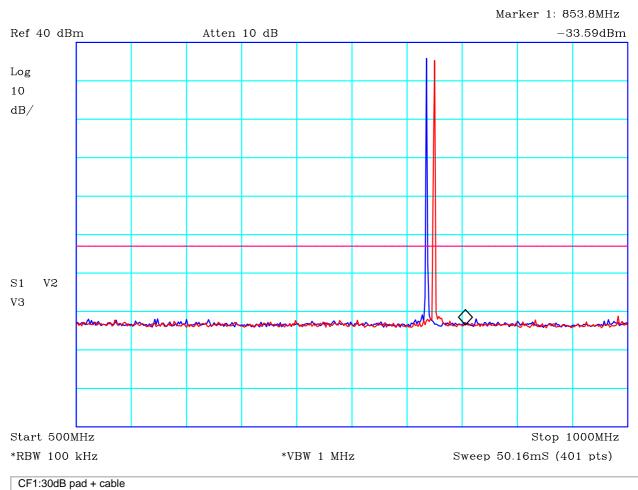




PLOT 22 Antenna Conducted Spur Emissions - 862 to 869 Band - 9kHz to 500MHz

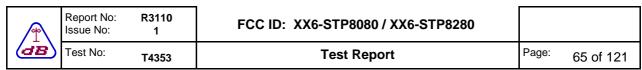
Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	-13dBm		Limit2:		
Limit3:			Limit4:		
Blue: 862MHz Red 869MHz Limit -13dBm					
Facility:	Environ			Mode:	1
				Modification State:	1
		File:	H25076D5		

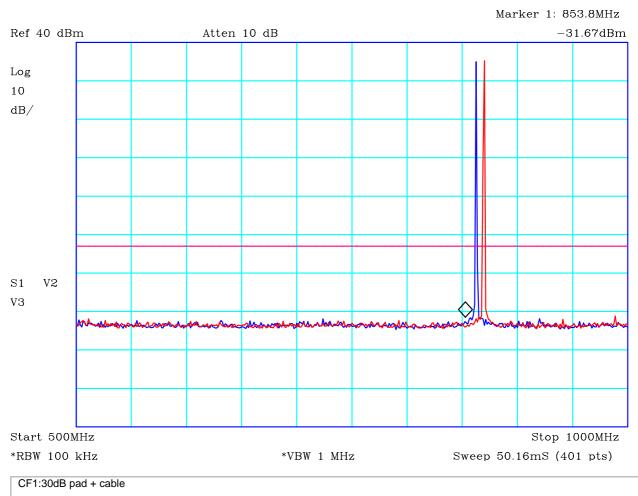




## PLOT 23 Antenna Conducted Spur Emissions - 817 to 824 Band - 500MHz to 1GHz

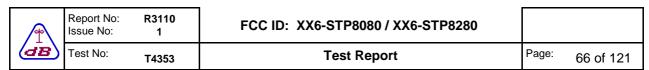
Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	-13dBm		Limit2:		
Limit3:			Limit4:		
Blue: 817MHz Red 824MHz Limit -13dBm					
Facility:	Environ			Mode:	1
				Modification State:	1
		File:	H2507731		

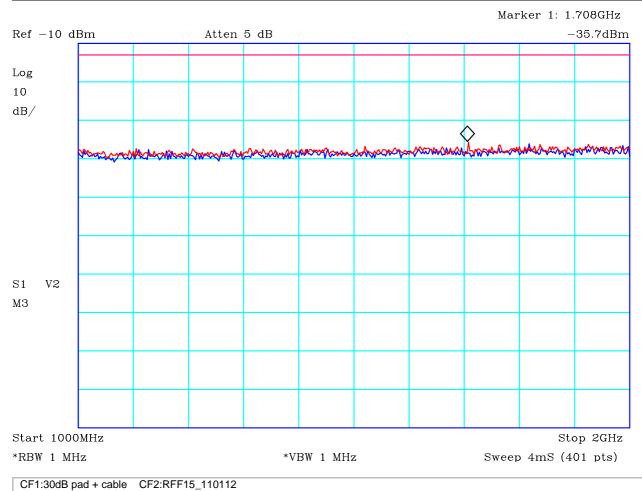




PLOT 24 Antenna Conducted Spur Emissions - 862 to 869 Band - 500MHz to 1GHz

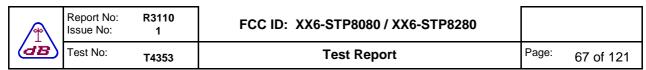
Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	-13dBm		Limit2:		
Limit3:			Limit4:		
Blue: 862MHz Red 869MHz Limit -13dBm					
Facility:	Environ			Mode:	1
				Modification State:	1
		File:	H2507738		

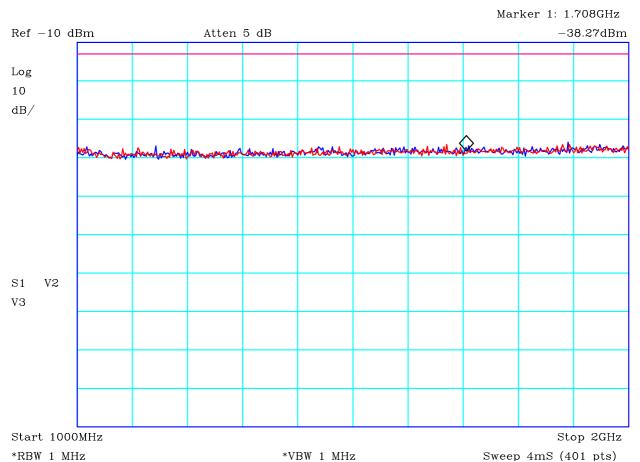




PLOT 25 Antenna Conducted Spur Emissions - 817 to 824 Band - 1GHz to 2GHz

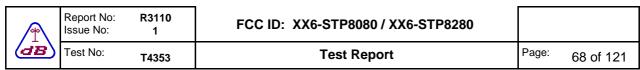
Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	-13dBm		Limit2:		
Limit3:			Limit4:		
Blue: 817MHz Red 824MHz Limit -13dBm					
Facility:	Environ			Mode:	1
				Modification State:	1
		File:	H2507759		

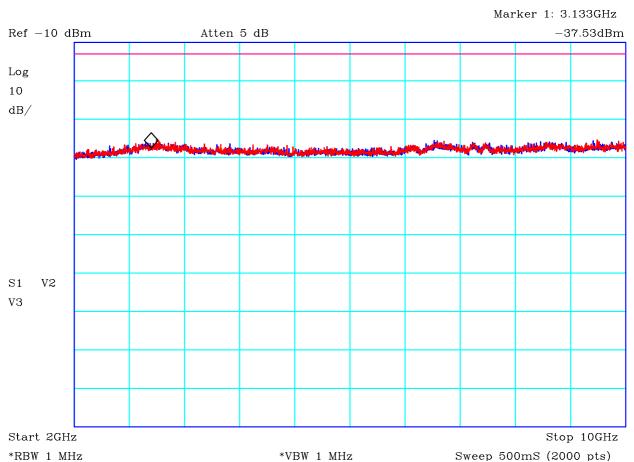




PLOT 26 Antenna Conducted Spur Emissions - 862 to 869 Band - 1GHz to 2GHz

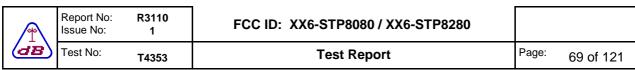
Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	-13dBm		Limit2:		
Limit3:			Limit4:		
Blue: 862MHz Red 869MHz Limit -13dBm					
Facility:	Environ			Mode:	1
				Modification State:	1
		File:	H2507761		

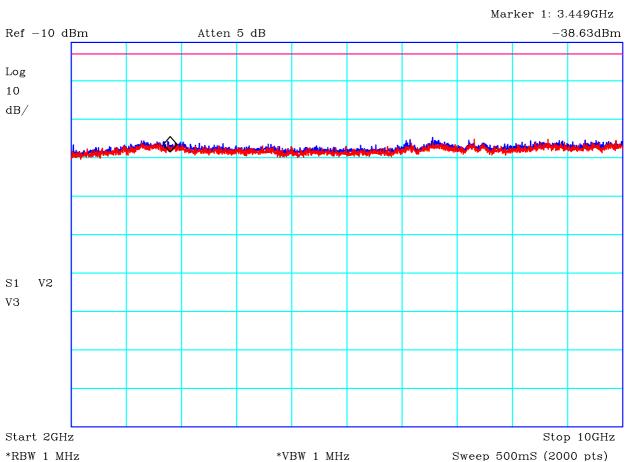




PLOT 27 Antenna Conducted Spur Emissions - 817 to 824 Band - 2GHz to 10GHz

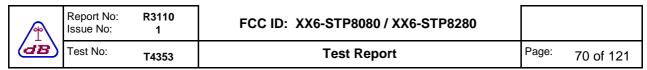
Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	-13dBm		Limit2:		
Limit3:			Limit4:		
Blue: 817MHz Red 824MHz Limit -13dBm					
Facility:	Environ			Mode:	1
				Modification State:	1
		File:	H25077D4		

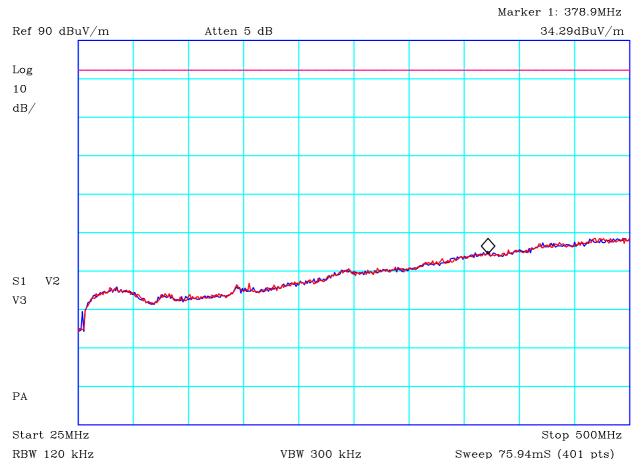




PLOT 28 Antenna Conducted Spur Emissions - 862 to 869 Band - 2GHz to 10GHz

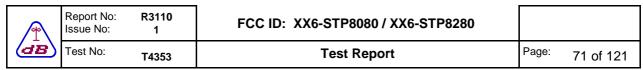
Company:	Sepura		Product:	STP8080	
Date:	07/06/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	-13dBm		Limit2:		
Limit3:			Limit4:		
Blue: 862MHz Red 869MHz Limit -13dBm					
Facility:	Environ			Mode:	1
				Modification State:	1
		File:	H25077DE		

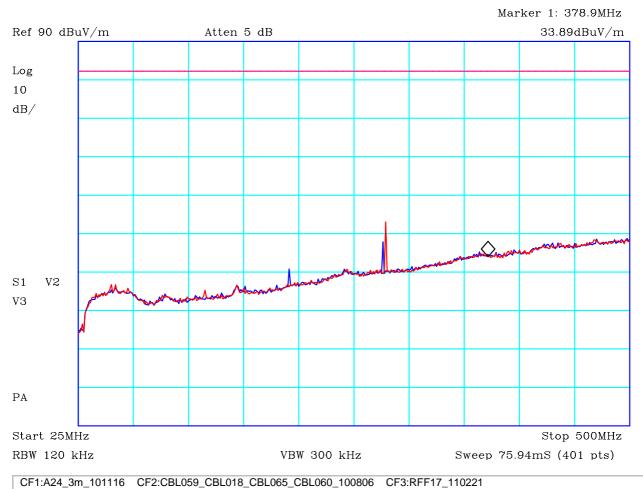




PLOT 29 Radiated Emission - Standalone - 817 - 824 band Tx - 25MHz to 500MHz

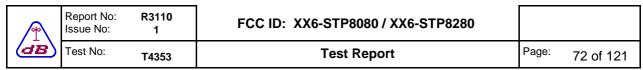
Company:	Sepura		Product:	STP8080		
Date:	18/05/2012		Test Eng:	Dave Smith		
Method:	FCC part 90		Method:			
Limit1:(VIO)	43+10 log(P	)@3m	Limit2:			
Limit3:			Limit4:			
Standalone Transmit mode. Maximum of both horizontal and vertical. Blue: 817MHz Red 824MHz Limit is approximate field strength correlation to -13dBm						
Facility:	Anech_2	Height	1.5	Mode:	1	
Distance	3m	Polarisation	V+H	Modification State:	0	
Angle	0-360	File:	H2418723			

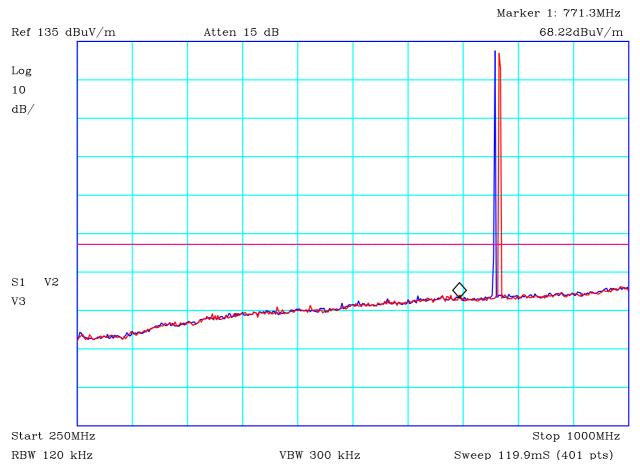




PLOT 30 Radiated Emission - Standalone - 862 - 869 band Tx - 25MHz to 500MHz

Company:	Sepura		Product:	STP8080			
Date:	18/05/2012		Test Eng:	Dave Smith			
Method:	RSS_GEN		Method:				
Limit1:(VIO)	43+10 log(F	?)@3m	Limit2:				
Limit3:			Limit4:				
Standalone Transmit mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz Limit is approximate field strength correlation to -13dBm							
Facility:	Anech_2	Height	1.5	Mode:	1		
Distance	3m	Polarisation	V+H	Modification State:	0		
Angle	0-360	File:	H2418740				





PLOT 31 Radiated Emissions - Standalone - 817 - 824 Band Tx - 250MHz to 1GHz

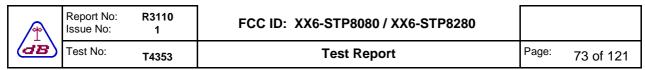
Company:	Sepura	Product:	STP8080	
Date:	10/05/2012	Test Eng:	Dave Smith	
Method:	FCC Part 90	Method:		
Limit1:(VIO)	43+10 log(P)@3m	Limit2:		
Limit3:		Limit4:		
Standalone				

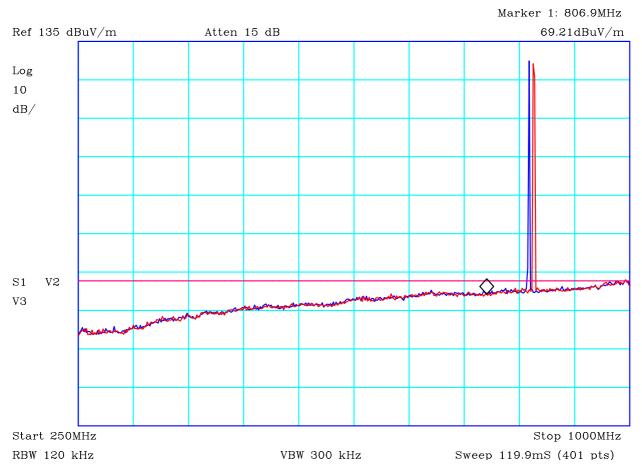
Transmit mode. Maximum of both horizontal and vertical.

Blue: 817MHz Red 824MHz

Limit is approximate field strength correlation to -13dBm

Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H2410781		

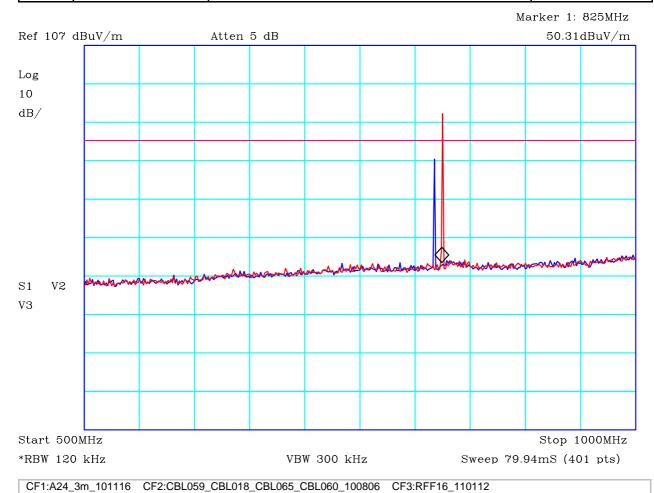




PLOT 32 Radiated Emissions - Standalone - 862 - 869 Band Tx - 250MHz to 1GHz

Company:	Sepura		Product:	STP8080	
Date:	10/05/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	43+10 log(P)	@3m	Limit2:		
Limit3:	3( )		Limit4:		
Blue: 862MHz Red 869MHz Limit is approxi		oth horizontal and			
Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H241077E		

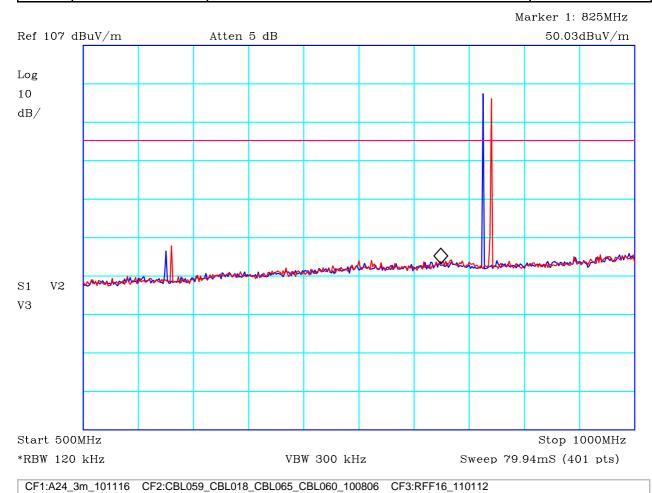
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
(dB)	Test No:	T4353	Test Report	Page:	74 of 121



PLOT 33 Radiated Emissions - Standalone - 817 - 824 band Tx - 500MHz to 1GHz - with notch filter

Company:	Sepura		Product:	STP8080		
Date:	18/05/2012	2	Test Eng:	Dave Smith		
Method:	FCC Part 9	90	Method:			
Limit1:(VIO)	43+10 log(	P)@3m	Limit2:			
Limit3:			Limit4:			
Blue: 817MHz Red 824MHz		f both horizontal a				
Facility:	Anech_2	Height	1.5	Mode:	1	
Distance	3m	Polarisation	V+H	Modification State:	0	
Angle	0-360	File:	H2418671			

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
(dB)	Test No:	T4353	Test Report	Page:	75 of 121

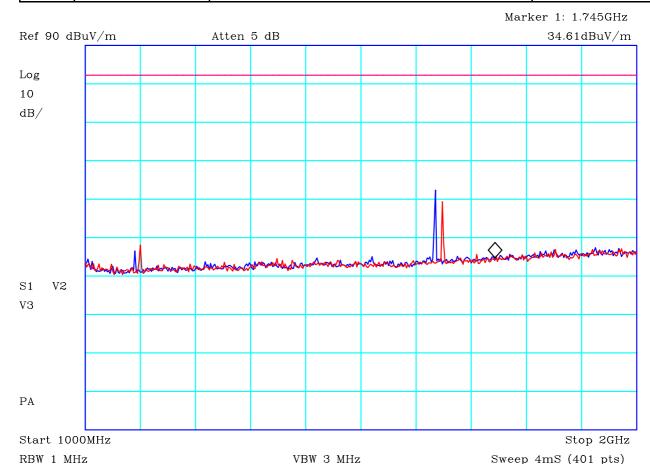


PLOT 34 Padiated Emissions - Standalone - 862 - 869 hand Ty - 500MHz to 1GHz

PLOT 34 Radiated Emissions - Standalone - 862 - 869 band Tx - 500MHz to 1GHz - with notch filter

Company:	Sepura		Product:	STP8080	
Date:	18/05/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	43+10 log(P)	@3m	Limit2:		
Limit3:			Limit4:		
Standalone. Using notch filter. Transmit mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz Limit is approximate field strength correlation to -13dBm					
Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	√+H	Modification State:	0
Angle	0-360	File:	H2418685		

<u> </u>	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
(dB)	Test No:	T4353	Test Report	Page:	76 of 121

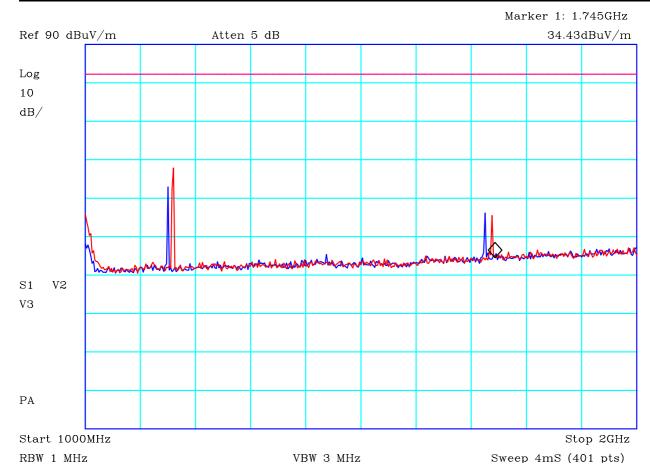


CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

PLOT 35 Radiated Emissions - Standalone - 817 - 824 band Tx - 1GHz to 2GHz

Company:	Sepura		Product:	STP8080	
Date:	21/05/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	43+10 log(P)	@3m	Limit2:		
Limit3:			Limit4:		
Standalone Transmit mode. Blue: 817MHz Red 824MHz Limit is approxii		ooth horizontal a			
Facility:	Anech_2	Height	1m	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H242169C		

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	77 of 121

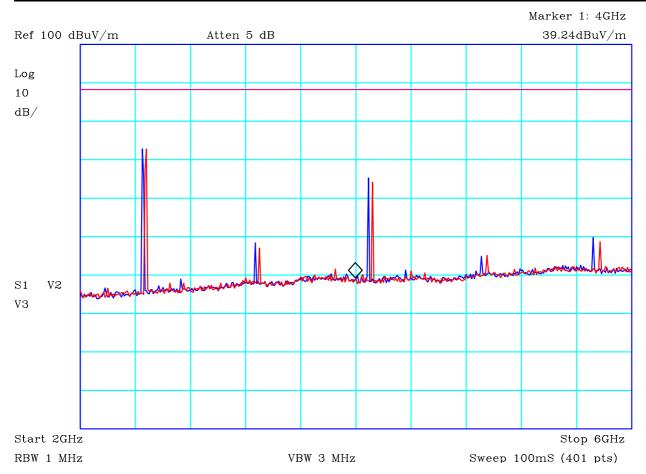


CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

PLOT 36 Radiated Emissions - Standalone - 862 - 869 band Tx - 1GHz to 2GHz

Company:	Sepura		Product:	STP8080		
Date:	21/05/2012		Test Eng:	Dave Smith		
Method:	FCC part 90	)	Method:			
Limit1:(VIO)	43+10 log(F	)@3m	Limit2:			
Limit3:			Limit4:			
Blue: 862MHz Red 869MHz Limit is approxi	mate field strer	both horizontal a	o -13dBm			
Facility:	Anech_2	Height	1m	Mode:	1	
Distance	3m	Polarisation	V+H	Modification State:	0	
Angle	0-360	File:	H24216BE			

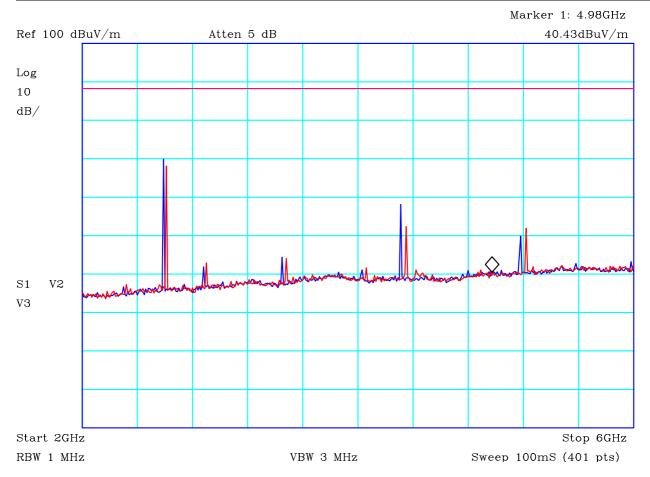
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	78 of 121



PLOT 37 Radiated Emissions - Standalone - 817 - 824 band Tx - 2GHz to 6GHz

0	0		D. L.	0	
Company:	Sepura		Product:	STP8080	
Date:	29/05/2012		Test Eng:	Dave Smith	
Method:	FCC part 90		Method:		
Limit1:(VIO)	43+10 log(P)	@1.5m	Limit2:		
Limit3:			Limit4:		
Blue: 817MHz Red 824MHz Limit is approxii	mate field streng	oth horizontal and	-13dBm		
Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H24306B6		

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	79 of 121



PLOT 38 Radiated Emissions - Standalone - 862 - 869 band Tx - 2GHz to 6GHz

Company:	Sepura		Product:	STP8080			
Date:	ate: 30/05/2012		Test Eng:	Dave Smith			
Method:	Method: FCC Part 90						
Limit1:(VIO) 43+10 log(P)@1.5m			Limit2:				
Limit3:			Limit4:				
Standalone Transmit mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz Limit is approximate field strength correlation to -13dBm							
Facility:	Anech_2	Height	1m	Mode:	1		
Distance	1.5m	Polarisation	V+H	Modification State:	1		
Angle	0-360	File:	H24306B0				

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
(dB)	Test No:	T4353	Test Report	Page:	80 of 121

CF1:A23\_3m\_100806 CF2:CBL049\_110107 CF3:PRE3\_110113 CF4:RFF22\_110221

PLOT 39 Radiated Emissions - Standalone - 817 - 824 band Tx - 5GHz to 10GHz

Company:	Sepura		Product:	STP8080	
Date:	30/05/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	43+10 log(P)	@1.5m	Limit2:		
Limit3:			Limit4:		
Standalone Transmit mod Blue: 817MHz Red 824MHz Limit is approx					
Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V+H	Modification State:	1

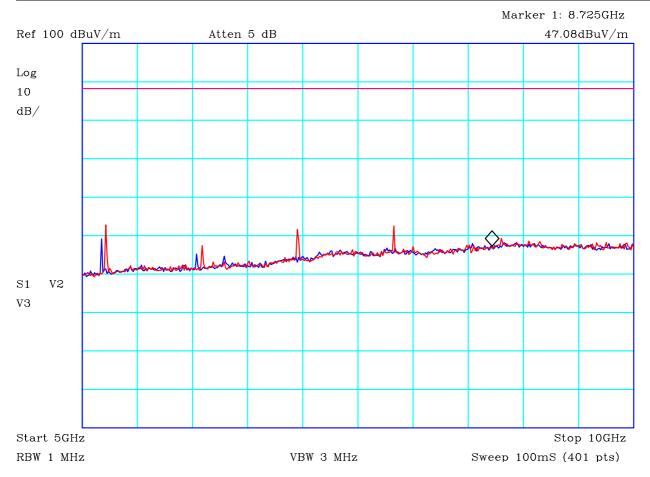
H24306F9

Angle

0-360

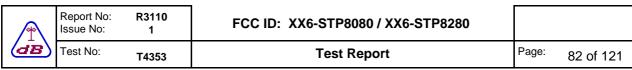
File:

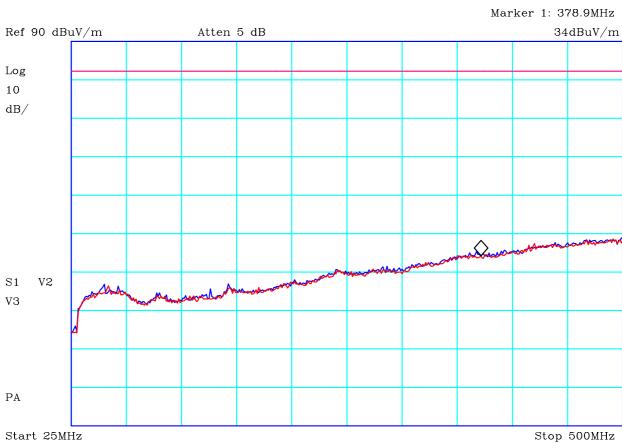
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	81 of 121



PLOT 40 Radiated Emissions - Standalone - 862 - 869 band Tx - 5GHz to 10GHz

Company:	Sepura		Product:	STP8080		
Date:	30/05/2012		Test Eng:	Dave Smith		
Method:	FCC part 90		Method:			
Limit1:(VIO)	43+10 log(P)	@1.5m	Limit2:			
Limit3:			Limit4:			
Standalone Transmit mode. Blue: 862MHz Red 869MHz Limit is approxir		ooth horizontal a				
Facility:	Anech_2	Height	1m	Mode:	1	
Distance	1.5m	Polarisation	V+H	Modification State:	1	
Angle	0-360	File:	H24306E1			





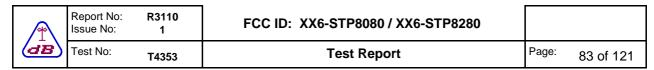
Sweep 75.94mS (401 pts)

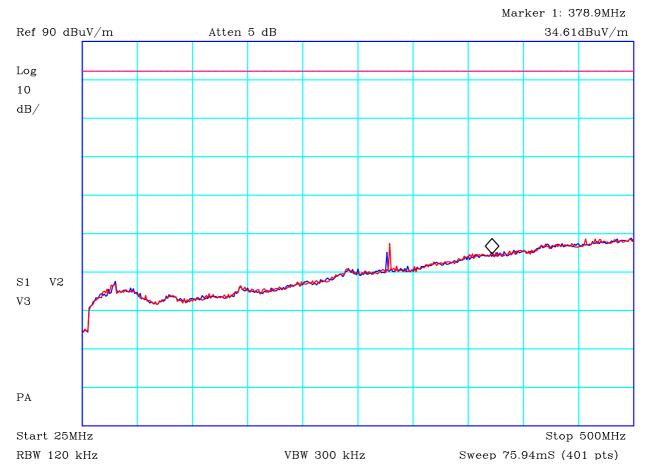
VBW 300 kHz

RBW 120 kHz

PLOT 41 Radiated Emissions - RSM - 817 - 824 band Tx - 25MHz to 500MHz

Company:	Sepura		Product:	STP8080	
Date:	Date: 18/05/2012  Method: FCC Part 15		Test Eng:	Dave Smith	
Method:			Method:	Method:	
Limit1:(VIO) 43+10 log(P)@3m		Limit2:			
Limit3:			Limit4:		
Blue: 817MHz Red 824MHz	. Maximum of b				
Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H2418759		

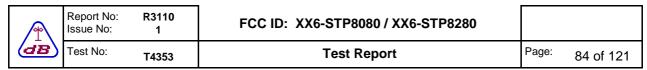


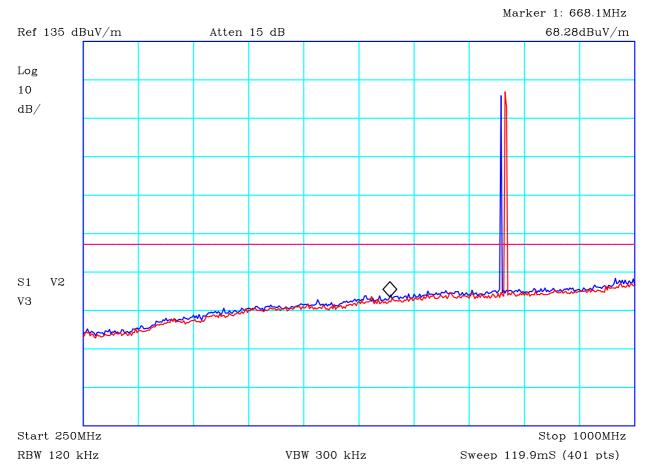


CF1:A24\_3m\_101116 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:RFF17\_110221

PLOT 42 Radiated Emissions - RSM - 862 - 869 band Tx - 25MHz to 500MHz

Company:	Sepura		Product:	STP8080			
Date:	18/05/2012		Test Eng:	Dave Smith			
Method:	Method: Fcc Part 90						
Limit1:(VIO) 43+10 log(P)@3m			Limit2:	Limit2:			
Limit3:			Limit4:				
RSM Transmit mode. Blue: 862MHz Red 869MHz Limit is approxir	Maximum of b						
Facility:	Anech_2	Height	1.5	Mode:	1		
Distance	3m	Polarisation	V+H	Modification State:	0		
Angle	0-360	File:	H241876C				

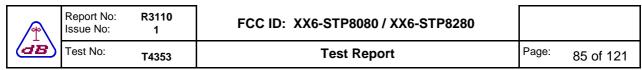


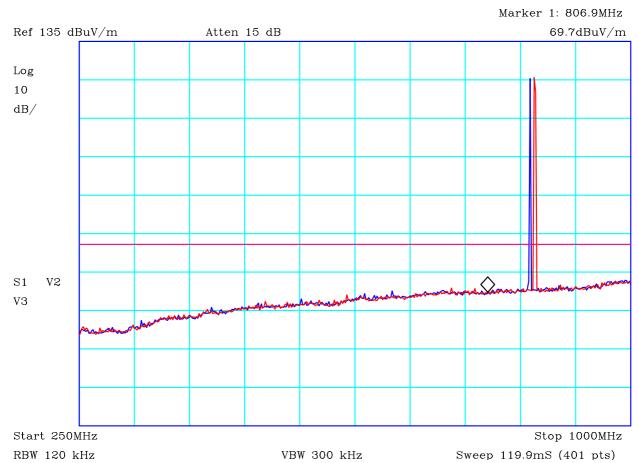


PLOT 43 Radiated Emissions - RSM - 817 - 824 band Tx - 250MHz to 1GHz

Company:	Sepura	Product:	STP8080
Date:	10/05/2012	Test Eng:	Dave Smith
Method:	FCC Part 90	Method:	
Limit1:(VIO)	43+10 log(P)@3m	Limit2:	
Limit3:		Limit4:	
Blue: 817MHz Red 824MHz	Maximum of both horizontal and ventable and ventage an		

Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H24107E4		

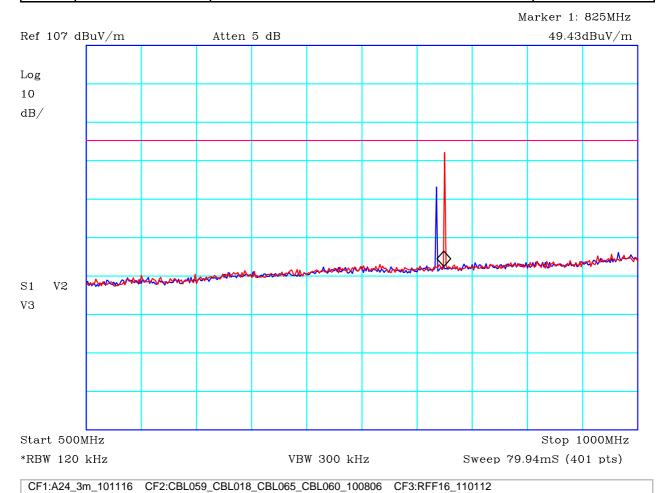




## PLOT 44 Radiated Emissions - RSM - 862 - 869 Band Tx - 250MHz to 1GHz

Company:	Sepura		Product:	STP8080		
Date:	10/05/2012		Test Eng:	Dave Smith		
Method:	Method: FCC Part 90		Method:			
Limit1:(VIO) 43+10 log(P)@3m		Limit2:				
Limit3:			Limit4:			
Blue: 862MHz Red 869MHz	mate field stre	both horizontal a	o -13dBm			
Facility:	Anech_2	Height	1.5	Mode:	1	
Distance	3m	Polarisation	V+H	Modification State:	0	
Angle	0-360	File:	H24107DF			

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
(dB)	Test No:	T4353	Test Report	Page:	86 of 121

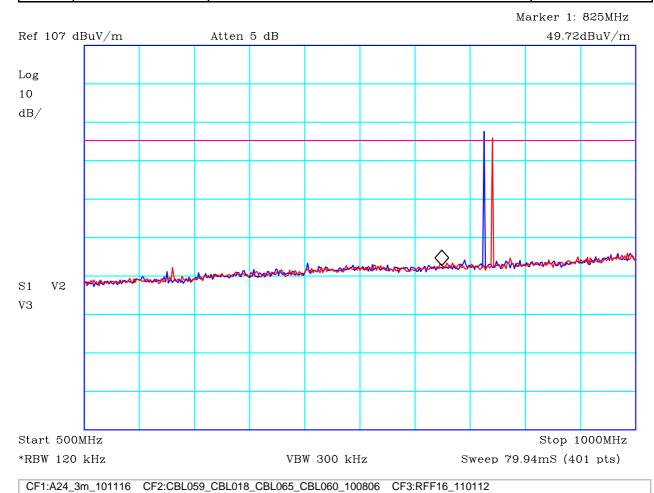


PLOT 45 Radiated Emissions - RSM - 817 - 824 band Tx - 500MHz to 1GHz - with

PLOT 45 Radiated Emissions - RSM - 817 - 824 band Tx - 500MHz to 1GHz - with notch filter

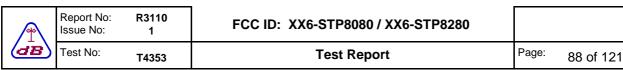
Company:	Sepura		Product:	STP8080			
Date:	18/05/2012		Test Eng:	Dave Smith			
Method:	FCC Part 90		Method:				
Limit1:(VIO)	43+10 log(P)@	<b></b> 3m	Limit2:				
Limit3:			Limit4:				
With RSM. Using notch filter. Transmit mode. Maximum of both horizontal and vertical. Blue: 817MHz Red 824MHz Limit is approximate field strength correlation to -13dBm							
Facility:	Anech_2	Height 1.	5 1	Mode:	1		
Distance	3m	Polarisation V	+H I	Modification State:	0		
Angle	0-360	File: H	24186B7				

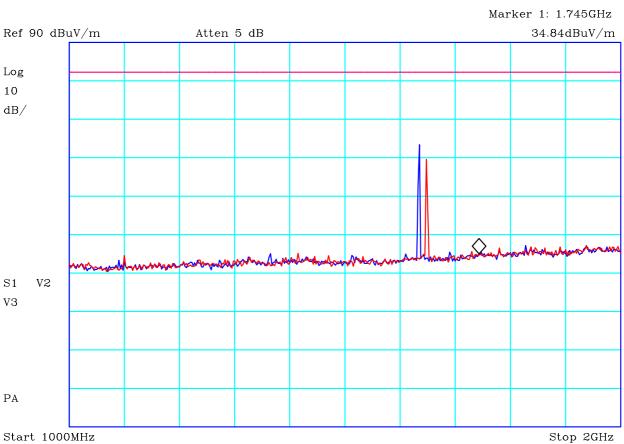
<u> </u>	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	87 of 121



PLOT 46 Radiated Emissions - RSM - 862 - 869 band Tx - 500MHz to 1GHz - with notch filter

Company:	Sepura		Product:	STP8080				
Date:	18/05/2012		Test Eng:	Dave Smith				
Method:	FCC part 90		Method:					
Limit1:(VIO)	43+10 log(P)	@3m	Limit2:					
Limit3:			Limit4:					
RSM. Using notch filter. Transmit mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz Limit is approximate field strength correlation to -13dBm								
Facility:	Anech_2	Height	1.5	Mode:	1			
Distance	3m	Polarisation	V+H	Modification State:	0			
Angle	0-360	File:	H24186CB					





CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

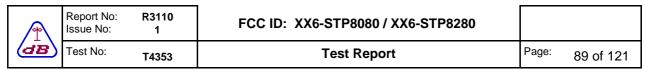
VBW 3 MHz

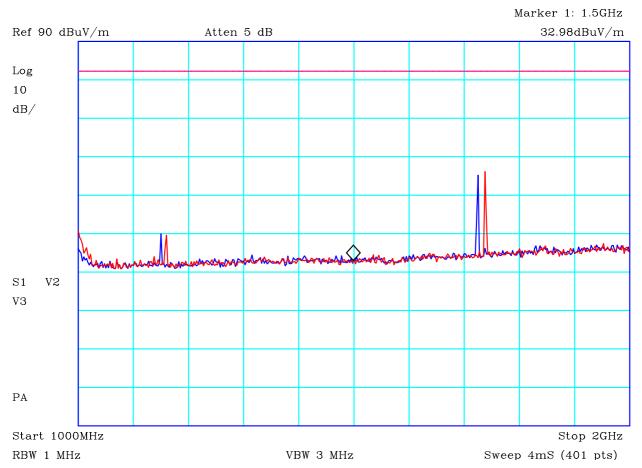
Sweep 4mS (401 pts)

PLOT 47 Radiated Emissions - RSM - 806 - 824 band Tx - 1GHz to 2GHz

RBW 1 MHz

Company:	Sepura		Product:	STP8080					
Date:	22/05/2012		Test Eng:	Dave Smith					
Method:	FCC Part 90		Method:						
Limit1:(VIO)	43+10 log(P)	@3m	Limit2:						
Limit3:			Limit4:						
Transmit mode. Blue: 817MHz Red 824MHz	RSM Transmit mode. Maximum of both horizontal and vertical. Blue: 817MHz								
Facility:	Anech_2	Height	1m	Mode:	1				
Distance	3m	Polarisation	V+H	Modification State:	0				
Angle	0-360	File:	H24224A5						

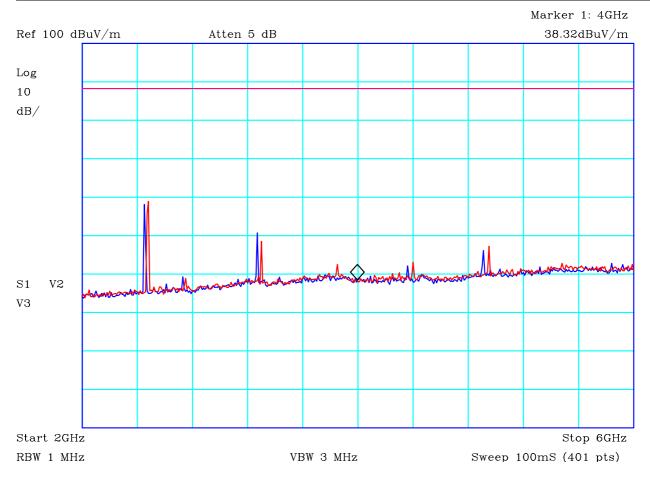




PLOT 48 Radiated Emissions - RSM - 862 - 869 band Tx - 1GHz to 2GHz

Company:	Sepura		Product:	STP8080				
Date:	22/05/2012		Test Eng:	Dave Smith				
Method:	FCC Part 90		Method:					
Limit1:(VIO)	43+10 log(P)	@3m	Limit2:					
Limit3:			Limit4:					
Transmit mode. Blue: 862MHz Red 869MHz	RSM Transmit mode. Maximum of both horizontal and vertical. Blue: 862MHz							
Facility:	Anech_2	Height	1m	Mode:	1			
Distance	3m	Polarisation	V+H	Modification State:	0			
Angle	0-360	File:	H24224F0					

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	90 of 121



PLOT 49 Radiated Emissions - RSM - 817 - 824 band Tx - 2GHz to 6GHz

Company:	Sepura	Produ	ıct: ST	P8080				
Date:	29/05/2012	Test I	Eng: Dav	ve Smith				
Method:	FCC Part 90	Metho	od:					
Limit1:(VIO)	43+10 log(P)@1.	5m Limit2	). 					
Limit3:		Limit4	<b>!:</b>					
Standalone Transmit mode. Maximum of both horizontal and vertical. Blue: 817MHz Red 824MHz Limit is approximate field strength correlation to -13dBm								
Facility:	Anech_2 He	ight 1m	Mode:	1				

V+H

H24306C1

Modification State:

Polarisation

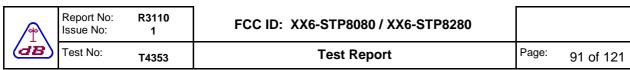
File:

Distance

Angle

1.5m

0-360

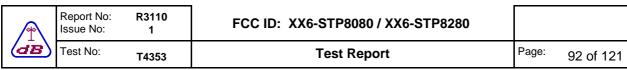


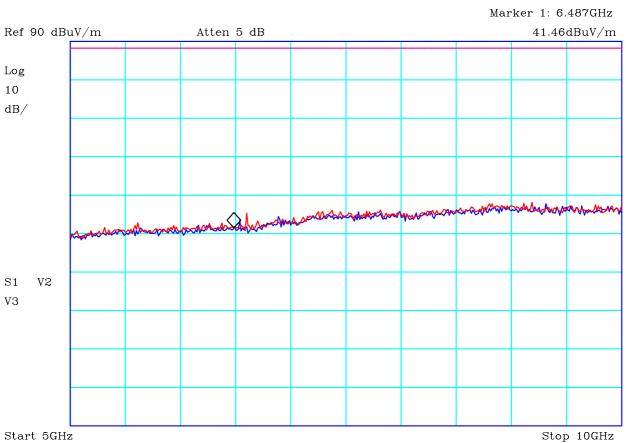
CF1:A23\_3m\_100806 CF2:CBL049\_110107 CF3:PRE3\_110113 CF4:RFF22\_110221

PLOT 50 Radiated Emissions - RSM - 862 - 869 band Tx - 2GHz to 6GHz

Company:	Sepura	Product:	STP8080
Date:	22/05/2012	Test Eng:	Dave Smith
Method:	FCC Part 90	Method:	
Limit1:(VIO)	43+10 log(P)@1.5m	Limit2:	
Limit3:		Limit4:	
Blue: 862MHz Red 869MHz	Maximum of both horizontal and venate field strength correlation to -13c		

Facility:	Anech_2	Height	1m	Mode:	1	
Distance	1.5m	Polarisation	V+H	Modification State:	0	
Angle	0-360	File:	H24306BE			





VBW 3 MHz

Sweep 100mS (401 pts)

# PLOT 51 Radiated Emissions - RSM - 817 - 824 band Tx - 5GHz to 10GHz

Company:	Sepura	Product:	STP8080	
Date:	22/05/2012	Test Eng:	Dave Smith	
Method:	FCC part 90	Method:		
Limit1:(VIO)	43+10 log(P)@1.5m	Limit2:		
Limit3:		Limit4:		

RSM

RBW 1 MHz

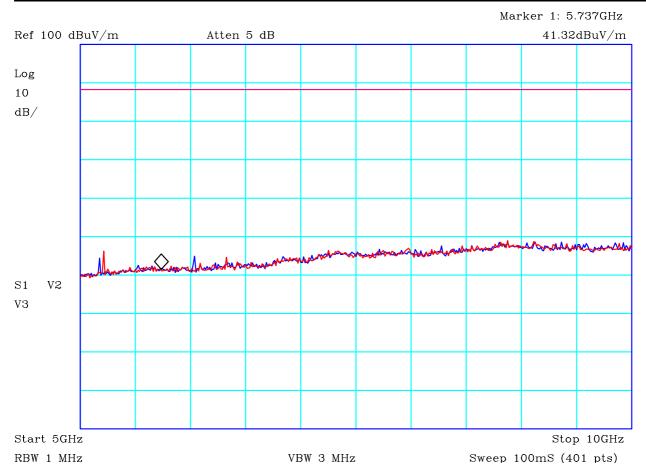
Transmit mode. Maximum of both horizontal and vertical.

Blue: 817MHz Red 824MHz

Limit is approximate field strength correlation to -13dBm

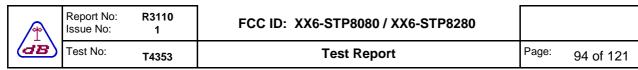
Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H24306C5		

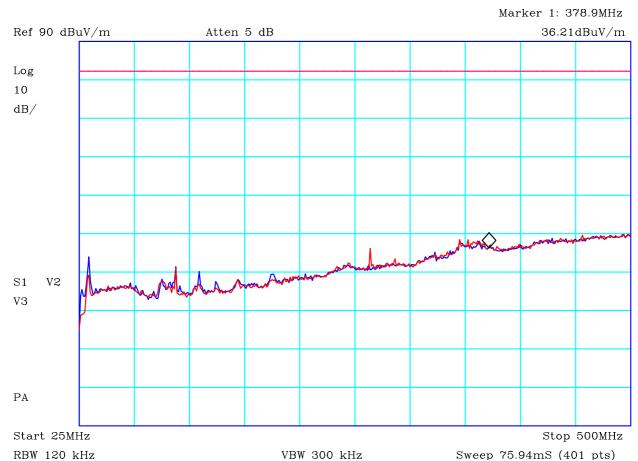
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	93 of 121



PLOT 52 Radiated Emissions - RSM - 862 - 869 band Tx - 5GHz to 10GHz

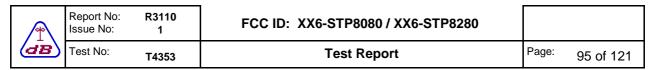
Company:	Sepura		Product:	STP8080			
Date:	30/05/2012		Test Eng:	Dave Smith			
			_	Dave Simili			
Method:	FCC part 90		Method:				
Limit1:(VIO)	43+10 log(P)	@1.5m	Limit2:				
Limit3:			Limit4:				
RSM Transmit mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz Limit is approximate field strength correlation to -13dBm							
Facility:	Anech_2	Height	1m	Mode:	1		
Distance	1.5m	Polarisation	V+H	Modification State:	1		
Angle	0-360	File:	H2430780				

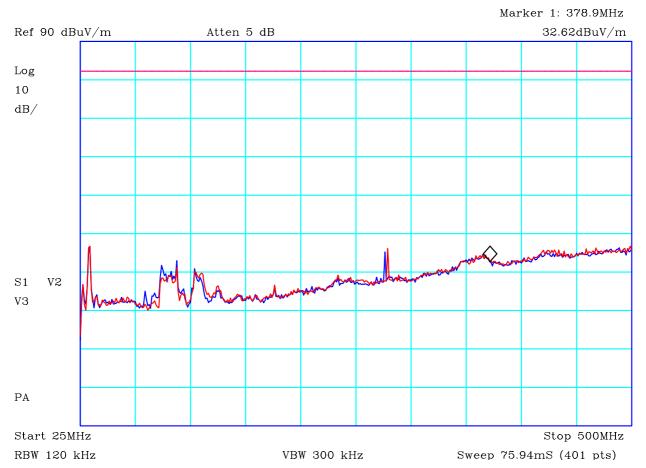




PLOT 53 Radiated Emissions - Car Kit - 817 - 824 band Tx - 25MHz to 500MHz

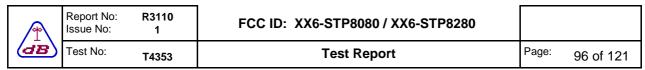
Company:	Sepura		Product:	STP8080	
Date:	11/05/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90	)	Method:		
Limit1:(VIO)	43+10 log(F	P)@3m	Limit2:		
Limit3:			Limit4:		
Blue: 817MHz Red 824MHz	imate field stre	both horizontal a	o -13dBm		
Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H2411516		

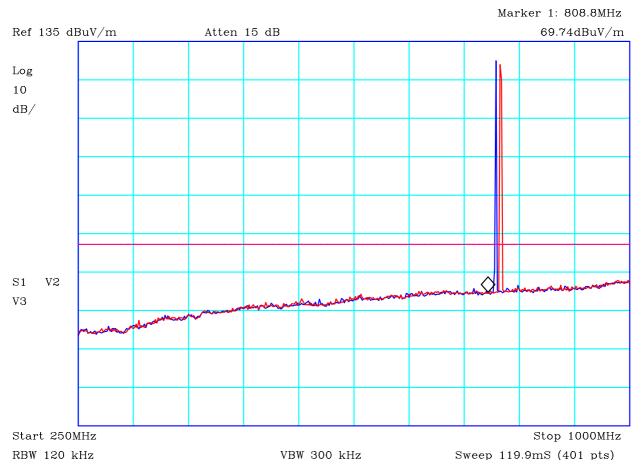




PLOT 54 Radiated Emissions - Car Kit - 862 - 869 band Tx - 25MHz to 500MHz

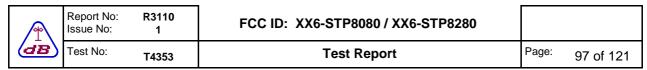
Company:	Sepura		Product:	STP8080	
Date:	11/05/2012		Test Eng:	Dave Smith	
Method:	FCC Part 9	0	Method:		
Limit1:(VIO)	43+10 log(l	P)@3m	Limit2:		
Limit3:			Limit4:		
Blue: 862MHz Red 869MHzz		f both horizontal a			
Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H25214C1		

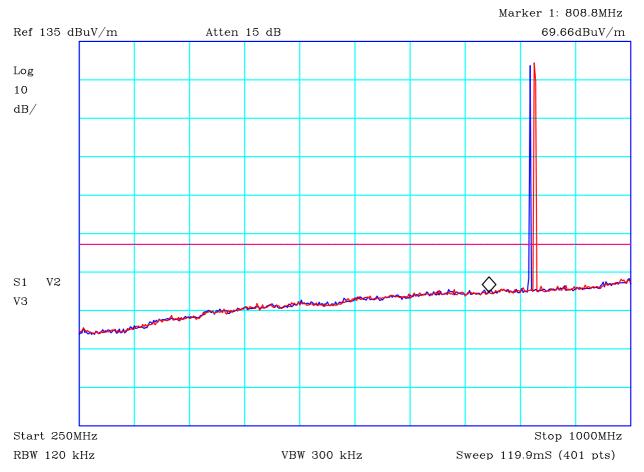




PLOT 55 Radiated Emissions - Car Kit - 817 - 824 band Tx - 250MHz to 1GHz

Company:	Sepura		Product:	STP8080	
Date:	11/05/2012		Test Eng:	Dave Smith	
Method:	FCC_part 9	90	Method:		
Limit1:(VIO)	43+10 log(l	P)@3m	Limit2:		
Limit3:			Limit4:		
Blue: 817MHz Red 824MHz		f both horizontal a			
Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H24114C6		

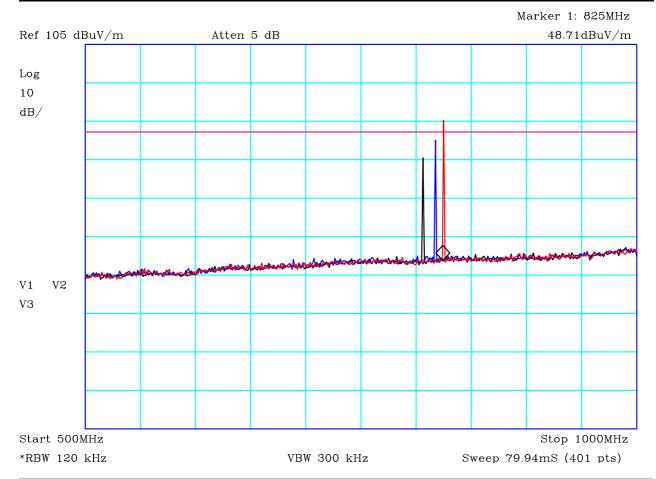




PLOT 56 Radiated Emissions - Car Kit - 862 - 869 band Tx - 250MHz to 1GHz

Company:	Sepura		Product:	STP8080	
Date:	11/05/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90	)	Method:		
Limit1:(VIO)	43+10 log(F	?)@3m	Limit2:		
Limit3:			Limit4:		
Blue: 862MHz Red 869MHz Limit is approxi		both horizontal a			
Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H24114EA		

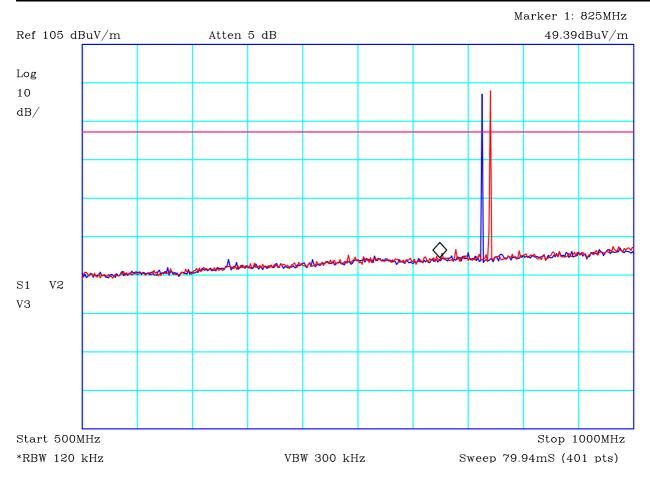
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
(dB)	Test No:	T4353	Test Report	Page:	98 of 121



PLOT 57 Radiated Emissions - Car Kit - 817 - 824 band Tx - 500MHz to 1GHz - with notch filter

Company:	Sepura		Product:	STP8080	
Date:	11/05/2012		Test Eng:	Dave Smith	
Method:	FCC Part 90		Method:		
Limit1:(VIO)	43+10 log(P)	@3m	Limit2:		
Limit3:			Limit4:		
Blue: 817MHz Red 824MHz	Maximum of be	oth horizontal and vigith correlation to -1			
Facility:	Anech_2	Height	1.5	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H241148A		

	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	99 of 121



PLOT 58 Radiated Emissions - Car Kit - 862 - 869 band Tx - 500MHz to 1GHz - with notch filter

Company:	Sepura		Product:	STP8080		
Date:	11/05/2012	2	Test Eng:	Dave Smith		
Method:	FCC Part 9	90	Method:			
Limit1:(VIO)	43+10 log(	P)@3m	Limit2:			
Limit3:			Limit4:			
Blue: 862MHz Red 869MHz	e. Maximum o	of both horizontal a				
Facility:	Anech_2	Height	1.5	Mode:	1	
Distance	3m	Polarisation	V+H	Modification State:	0	
Angle	0-360	File:	H2411486			

<u> </u>	Report No: Issue No:	R3110 1
dB	Test No:	T4353

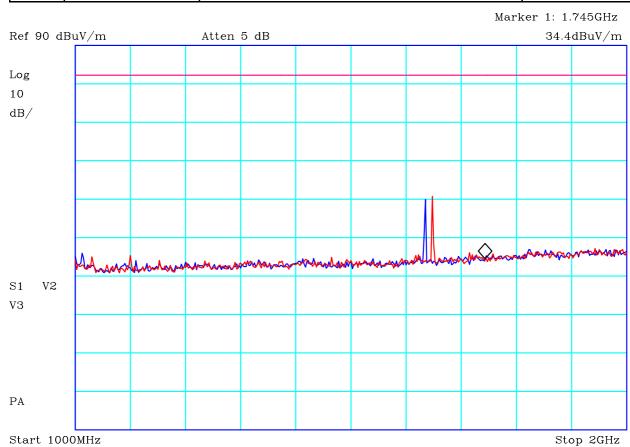
RBW 1 MHz

## FCC ID: XX6-STP8080 / XX6-STP8280

**Test Report** 

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Sweep 4mS (401 pts)



CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

VBW 3 MHz

PLOT 59 Radiated Emissions - Car Kit - 817 - 824 band Tx - 1GHz to 2GHz

Company:	Sepura	Product:	STP8080	
Date:	21/05/2012	Test Eng:	Dave Smith	
Method:	FCC Part 90	Method:		
Limit1:(VIO)	43+10 log(P)@3m	Limit2:		
Limit3:		Limit4:		
Carkit Transmit mode. Maximum of both horizontal and vertical. Blue: 817MHz Red 824MHz				

Limit is approximate field strength correlation to -13dBm

Facility:	Anech_2	Height	1m	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H242171B		

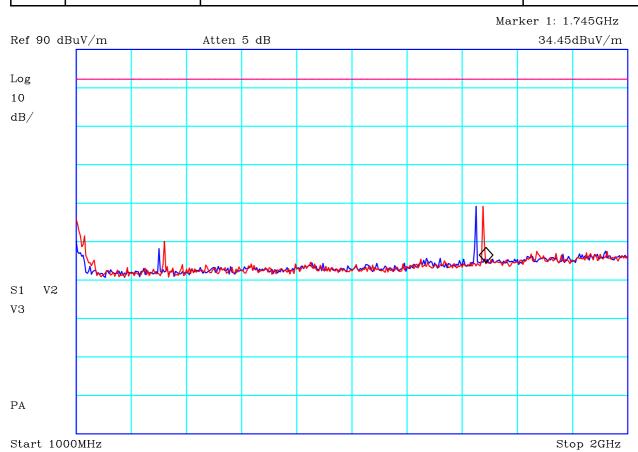
<u> </u>	Report No: Issue No:	R3110 1
(dB)	Test No:	T4353

#### FCC ID: XX6-STP8080 / XX6-STP8280

Test Report

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Sweep 4mS (401 pts)



CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

VBW 3 MHz

PLOT 60 Radiated Emissions - Car Kit - 862 - 869 band Tx - 1GHz to 2GHz

Company:	Sepura	Product:	STP8080	
Date:	21/05/2012	Test Eng:	Dave Smith	
Method:	FCC part 90	Method:		
Limit1:(VIO)	43+10 log(P)@3m	Limit2:		
Limit3:		Limit4:		
Carkit				

Carkit

RBW 1 MHz

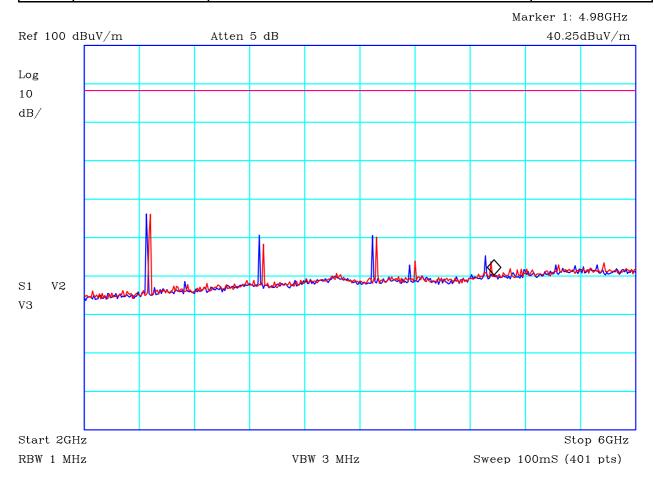
Transmit mode. Maximum of both horizontal and vertical.

Blue: 862MHz Red 869MHz

Limit is approximate field strength correlation to -13dBm

Facility:	Anech_2	Height	1m	Mode:	1
Distance	3m	Polarisation	V+H	Modification State:	0
Angle	0-360	File:	H242173C		

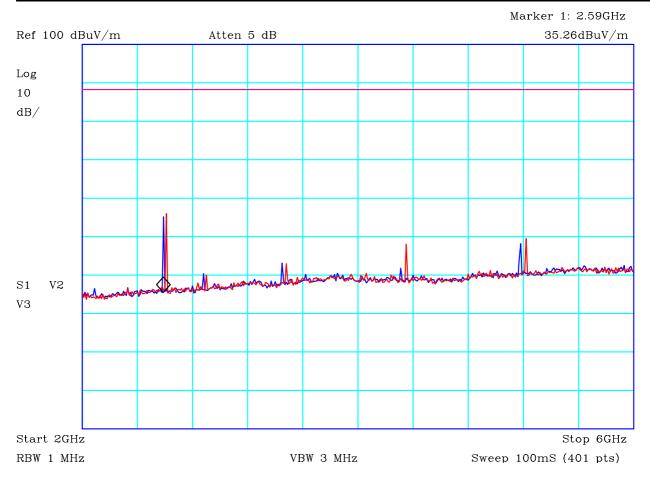
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	102 of 121



PLOT 61 Radiated Emissions - Car Kit - 817 - 824 band Tx - 2GHz to 6GHz

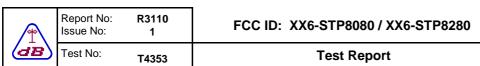
Company:	Sepura		Product:	STP8080			
Date:	30/05/2012		Test Eng:	Dave Smith			
Method:	FCC part 90		Method:				
Limit1:(VIO)	43+10 log(P)	@1.5m	Limit2:				
Limit3:			Limit4:				
Car Kit Transmit mode. Maximum of both horizontal and vertical. Blue: 817MHz Red 824MHz Limit is approximate field strength correlation to -13dBm							
Facility:	Anech_2	Height	1m	Mode:	1		
Distance	1.5m	Polarisation	V+H	Modification State:	1		
Angle	0-360	File:	H24307C4				

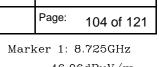
	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	103 of 12

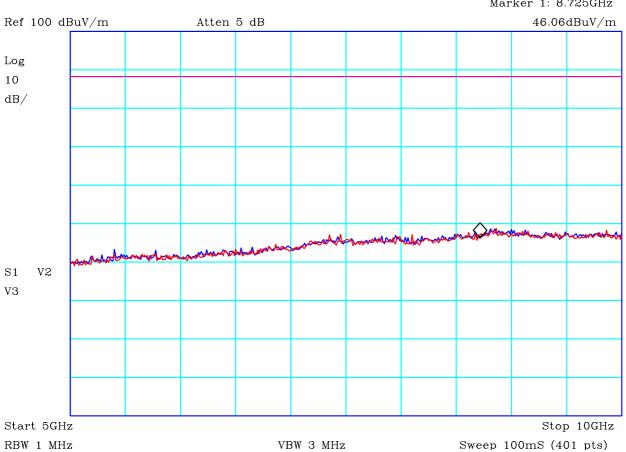


PLOT 62 Radiated Emissions - Car Kit - 862 - 869 band Tx - 2GHz to 6GHz

Company:	Sepura		Product:	STP8080			
Date:	30/05/2012		Test Eng:	Dave Smith			
Method:	FCC Part 90	)	Method:				
Limit1:(VIO)	43+10 log(P	)@1.5m	Limit2:				
Limit3:			Limit4:				
Car Kit Transmit mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz Limit is approximate field strength correlation to -13dBm							
Facility:	Anech_2	Height	1m	Mode:	1		
Distance	1.5m	Polarisation	V+H	Modification State:	1		
Angle	0-360	File:	H2430815				







PLOT 63 Radiated Emissions - Car Kit - 817 - 824 band Tx - 5GHz to 10GHz

Company:	Sepura	Product:	STP8080	
Date:	30/05/2012	Test Eng:	Dave Smith	
Method:	FCC Part 90	Method:		
Limit1:(VIO)	43+10 log(P)@1.5m	Limit2:		
Limit3:		Limit4:		
Car Kit				

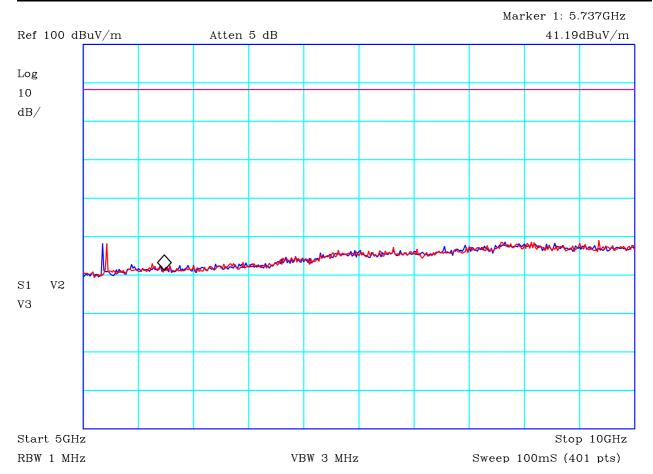
Transmit mode. Maximum of both horizontal and vertical.

Blue: 817MHz Red 824MHz

Limit is approximate field strength correlation to -13dBm

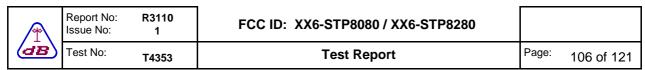
Facility:	Anech_2	Height	1m	Mode:	1
Distance	1.5m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H24307C2		

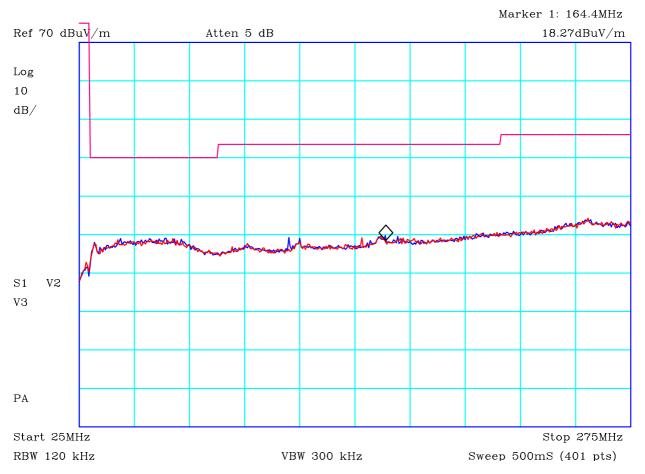
<u> </u>	Report No: Issue No:	R3110 1	FCC ID: XX6-STP8080 / XX6-STP8280		
dB	Test No:	T4353	Test Report	Page:	105 of 121



PLOT 64 Radiated Emissions - Car Kit - 862 - 869 band Tx - 5GHz to 10GHz

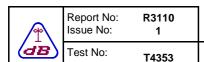
Company:	Sepura		Product:	STP8080			
Date:	30/05/2012		Test Eng:	Dave Smith			
Method:	FCC part 90		Method:				
Limit1:(VIO)	43+10 log(P)	@1.5m	Limit2:				
Limit3:			Limit4:				
Car Kit Transmit mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz Limit is approximate field strength correlation to13dBm							
Facility:	Anech_2	Height	1m	Mode:	1		
Distance	1.5m	Polarisation	V+H	Modification State:	1		
Angle	0-360	File:	H2430819				





## PLOT 65 Radiated Emissions - Standalone - Rx - 25MHz to 275MHz

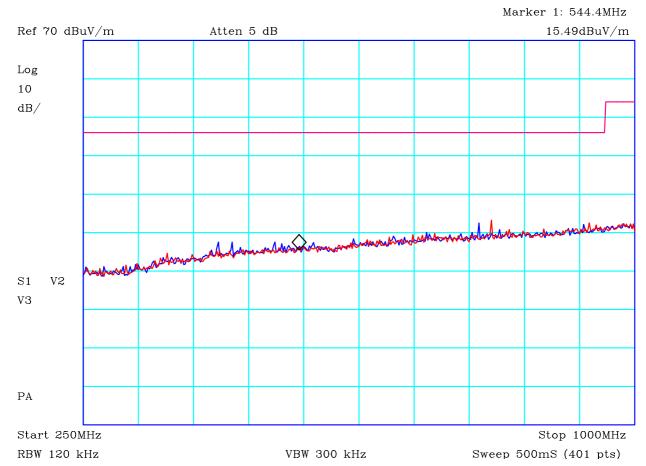
Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@3m		Limit2:		
Limit3:			Limit4:		
Standalone Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	th horizontal and	l vertical.		
Facility:	Anech_2	Height	1.5	Mode:	2
Distance	3m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H25214C6		



## FCC ID: XX6-STP8080 / XX6-STP8280

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PLOT 66 Radiated Emissions - Standalone - Rx - 250MHz to 1GHz

Company: Sepura Product: STP8080

Date: 06/06/2012 Test Eng: Dave Smith

Method: ANSI C63.4 Method:

Limit1:(VIO) FCC\_B@3m Limit2:

Limit4:

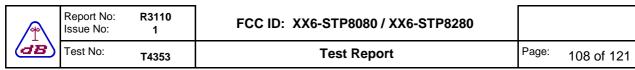
Standalone

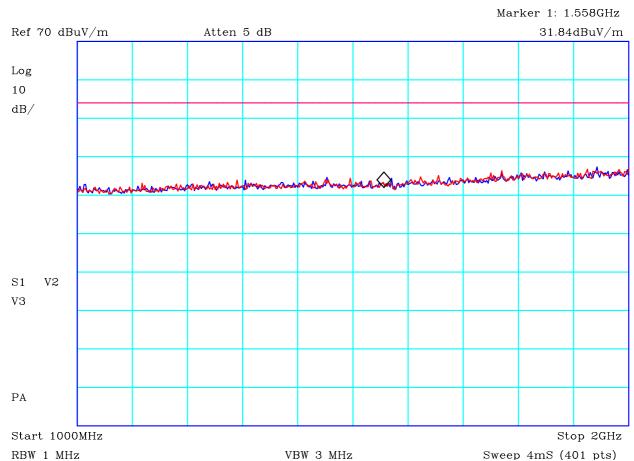
Limit3:

Receive mode. Maximum of both horizontal and vertical.

Blue: 862MHz Red 869MHz

Facility:	Anech_2	Height	1.5	Mode:	2
Distance	3m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H25214C8		

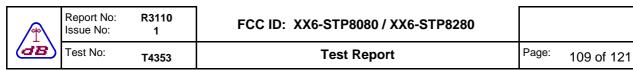


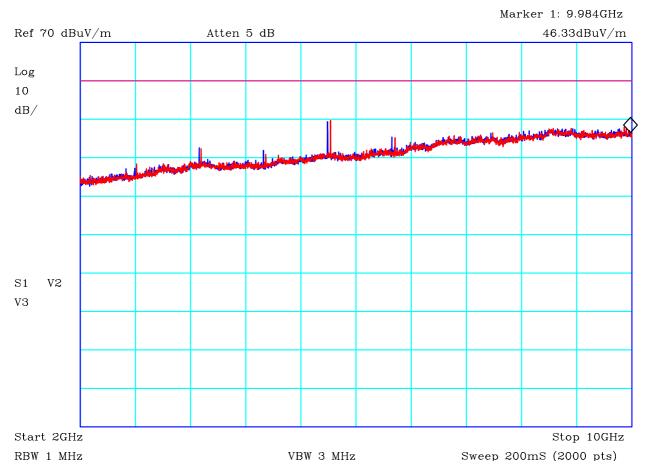


CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

# PLOT 67 Radiated Emissions - Standalone - Rx - 1GHz to 2GHz

Date: 01/06/2012 Test Eng: Dave Smith  Method: ANSI C63.4 Method:  Limit1:(VIO) FCC_Bx@3m Limit2:  Limit3: Limit4:  Standalone Receive mode. Blue: 862MHz Red 869MHz  Facility: Anech_2 Height 1m Mode: 2 Distance 3m Polarisation V+H Modification State: 1  Angle 0-360 File: H250168D	Company:	Sepura		Product:	STP8080	
Limit1:(VIO) FCC_Bx@3m Limit2: Limit3: Limit4:  Standalone Receive mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz  Facility: Anech_2 Height 1m Mode: 2 Distance 3m Polarisation V+H Modification State: 1	Date:	01/06/2012		Test Eng:	Dave Smith	
Limit3: Limit4:  Standalone Receive mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz  Facility: Anech_2 Height 1m Mode: 2 Distance 3m Polarisation V+H Modification State: 1	Method:	ANSI C63.4		Method:		
Standalone Receive mode. Maximum of both horizontal and vertical. Blue: 862MHz Red 869MHz  Facility: Anech_2 Height 1m Mode: 2 Distance 3m Polarisation V+H Modification State: 1	Limit1:(VIO)	FCC_Bx@3m		Limit2:		
Receive mode. Maximum of both horizontal and vertical.  Blue: 862MHz Red 869MHz  Facility: Anech_2 Height 1m Mode: 2 Distance 3m Polarisation V+H Modification State: 1	Limit3:			Limit4:		
Distance 3m Polarisation V+H Modification State: 1	Receive mode. Blue: 862MHz	Maximum of bo	th horizontal and	vertical.		
	Facility:	Anech_2	Height	1m	Mode:	2
Angle 0-360 File: H250168D	Distance	3m	Polarisation	V+H	Modification State:	1
	Angle	0-360	File:	H250168D		





PLOT 68 Radiated Emissions - Standalone - Rx - 2GHz to 10GHz

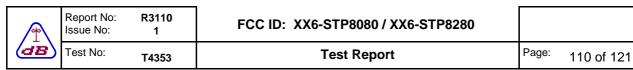
CF1:A23\_3m\_100806 CF2:PRE3\_110113 CF3:CBL049\_110107 CF4:RFF22\_110221

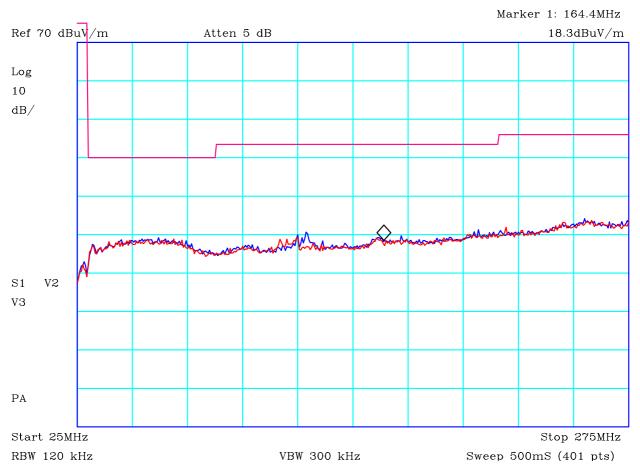
Company:	Sepura	Product:	STP8080	
Date:	29/05/2012	Test Eng:	Dave Smith	
Method:	ANSI C63.4	Method:		
Limit1:(VIO)	FCC_B@1.5m	Limit2:		
Limit3:		Limit4:		

Standalone Receive mode. Maximum of both horizontal and vertical.

Blue: 862MHz Red 869MHz

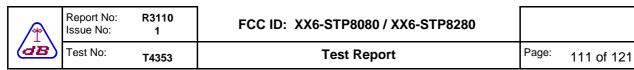
Facility:	Anech_2	Height	1m	Mode:	2
Distance	1.5m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H24296B2		

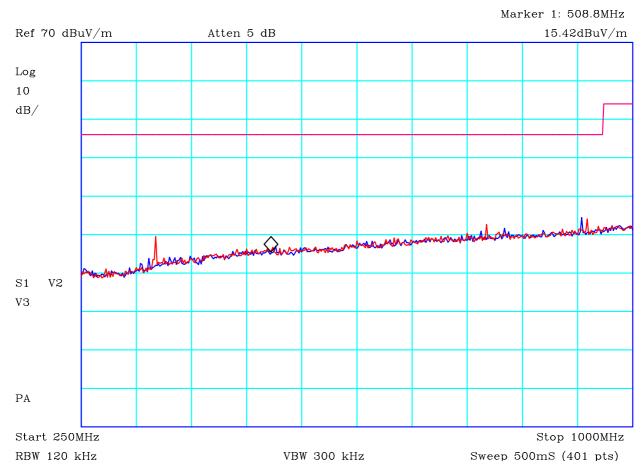




## PLOT 69 Radiated Emissions - RSM - Rx - 25MHz to 275MHz

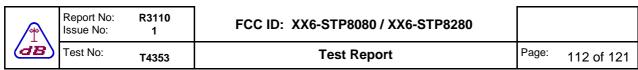
Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@3m		Limit2:		
Limit3:			Limit4:		
RSM Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	th horizontal an	d vertical.		
Facility:	Anech_2	Height	1.5	Mode:	2
Distance	3m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H25214CA		

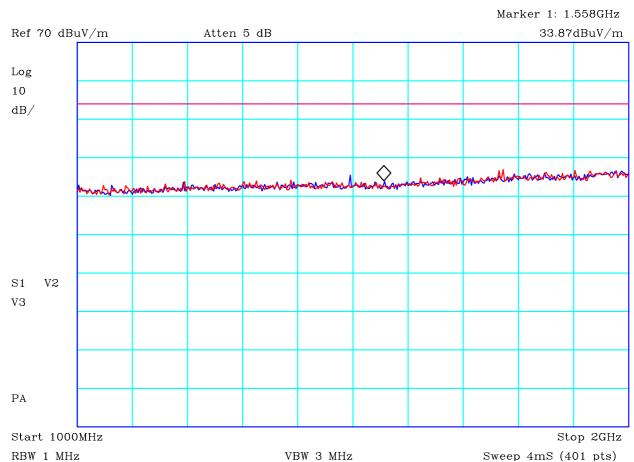




#### PLOT 70 Radiated Emissions - RSM - Rx - 250MHz to 1GHz

Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FGCC_B@3m	า	Limit2:		
Limit3:			Limit4:		
RSM Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	th horizontal and	l vertical.		
Facility:	Anech_2	Height	1.5	Mode:	2
Distance	3m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H25214CC		





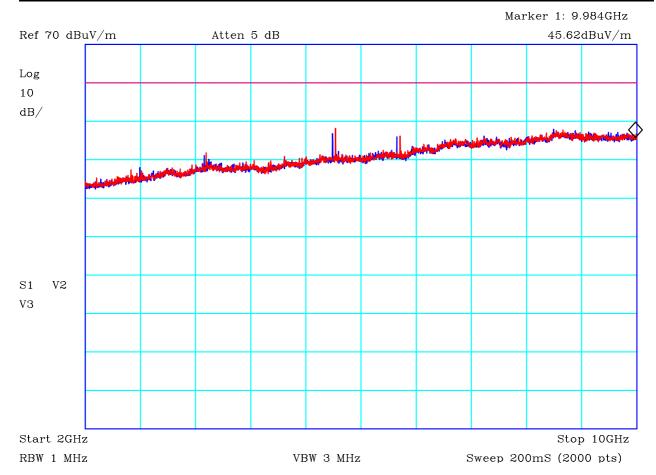
CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

# PLOT 71 Radiated Emissions - RSM - Rx - 1GHz to 2GHz

Company:	Sepura		Product:	STP8080	
Date:	01/06/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@3m		Limit2:		
Limit3:			Limit4:		
RSM Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	oth horizontal and	l vertical.		
Facility:	Anech_2	Height	1m	Mode:	2
Distance	3m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H25016A9		

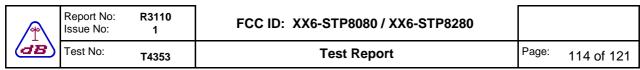


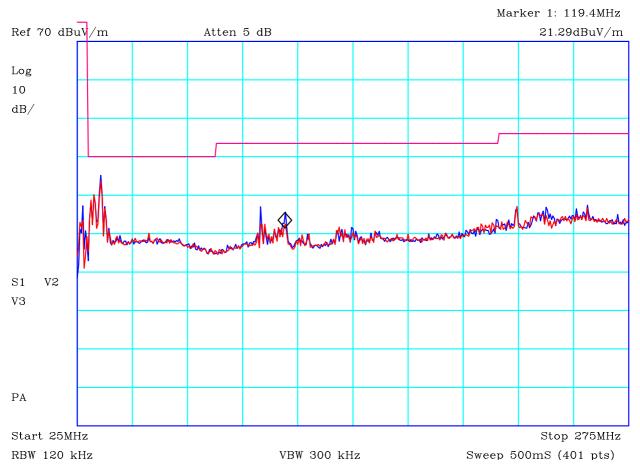
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## PLOT 72 Radiated Emissions - RSM - Rx - 2GHz to 10GHz

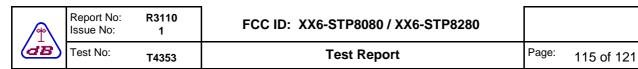
Company:	Sepura		Product:	STP8080	
Date:	30/05/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@1.5	m	Limit2:		
Limit3:			Limit4:		
RSM Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	oth horizontal an	d vertical.		
Facility:	Anech_2	Height	1m	Mode:	2
Distance	1.5m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H243072B		

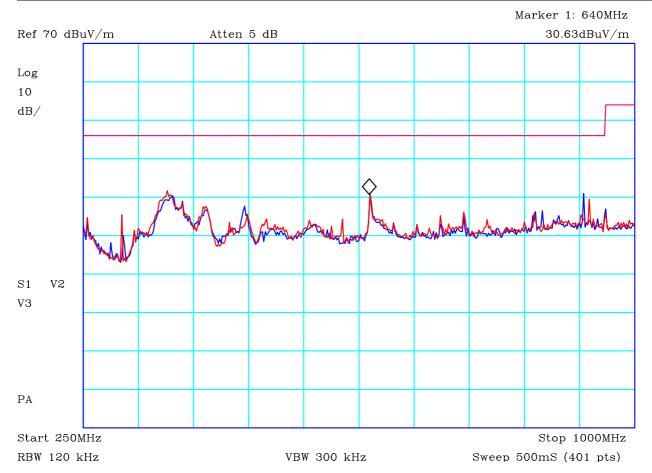




## PLOT 73 Radiated Emissions - Car Kit - Rx - 25MHz to 275MHz

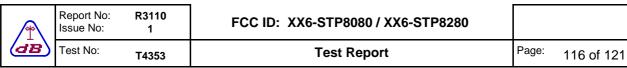
Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@3m		Limit2:		
Limit3:			Limit4:		
Car Kit Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	th horizontal ar	nd vertical.		
Facility:	Anech_2	Height	1.5	Mode:	2
Distance	3m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H25214D1		





# PLOT 74 Radiated Emissions - Car Kit - Rx - 250MHz to 1GHz

Company:	Sepura		Product:	STP8080	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@3m		Limit2:		
Limit3:			Limit4:		
Car Kit Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	th horizontal and	d vertical.		
Facility:	Anech_2	Height	1.5	Mode:	2
Distance	3m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H25214D3		



CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

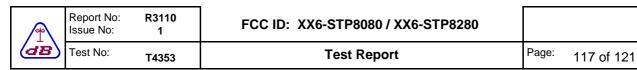
VBW 3 MHz

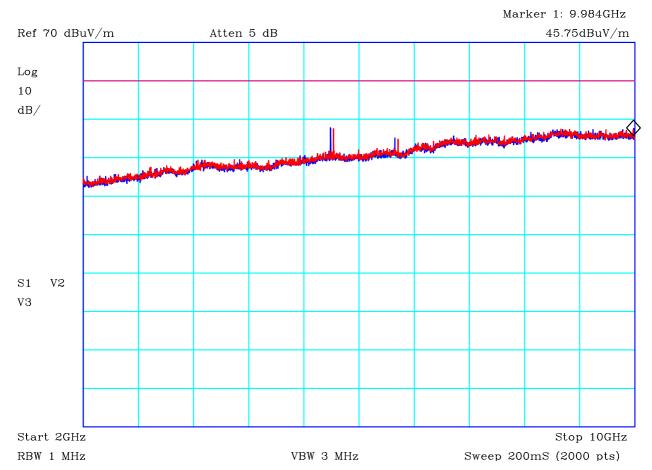
Sweep 4mS (401 pts)

#### PLOT 75 Radiated Emissions - Car Kit - Rx - 1GHz to 2GHz

RBW 1 MHz

Company:	Sepura		Product:	STP8080		
Date:	01/06/2012		Test Eng:	Dave Smith		
Method:	ANSI C63.4		Method:			
Limit1:(VIO)	FCC_B@3m		Limit2:			
Limit3:			Limit4:			
Car Kit Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	oth horizontal ar	nd vertical.			
Facility:	Anech_2	Height	1m	Mode:	2	
Distance	3m	Polarisation	V+H	Modification State:	1	
Angle	0-360	File:	H25016F3			

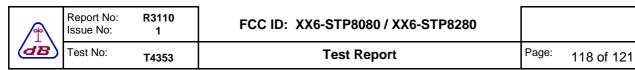


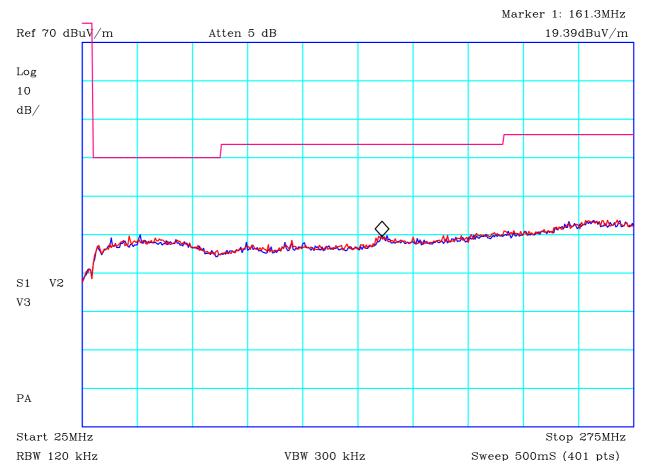


CF1:A23\_3m\_100806 CF2:PRE3\_110113 CF3:CBL049\_110107 CF4:RFF22\_110221

## PLOT 76 Radiated Emissions - Car Kit - Rx - 2GHz to 10GHz

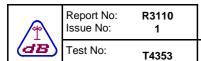
Company:	Sepura		Product:	STP8080	
Date:	30/05/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@1.5r	m	Limit2:		
Limit3:			Limit4:		
Car Kit Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	oth horizontal ar	nd vertical.		
Facility:	Anech_2	Height	1m	Mode:	2
Distance	1.5m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H24307E8		





## PLOT 77 Radiated Emissions - STP8280 - Rx - 25MHz to 275MHz

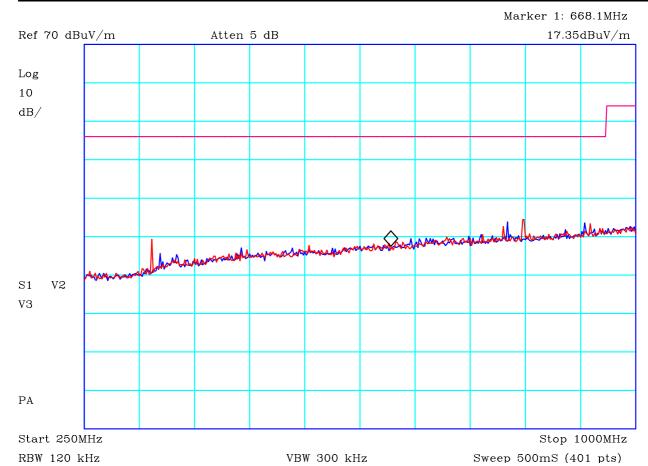
Company:	Sepura		Product:	STP8280		
Date:	06/06/2012		Test Eng:	Dave Smith		
Method:	ANSI C63.4		Method:			
Limit1:(VIO)	FCC_B@3m		Limit2:			
Limit3:			Limit4:			
STP8280 Receive mode. Blue: 862MHz Red 869MHz	Maximum of b	oth horizontal a	nd vertical.			
Facility:	Anech_2	Height	1.5	Mode:	2	
Distance	3m	Polarisation	V+H	Modification State:	1	
Angle	0-360	File:	H25214D5			



### FCC ID: XX6-STP8080 / XX6-STP8280

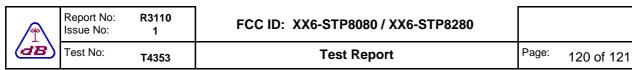
**Test Report** 

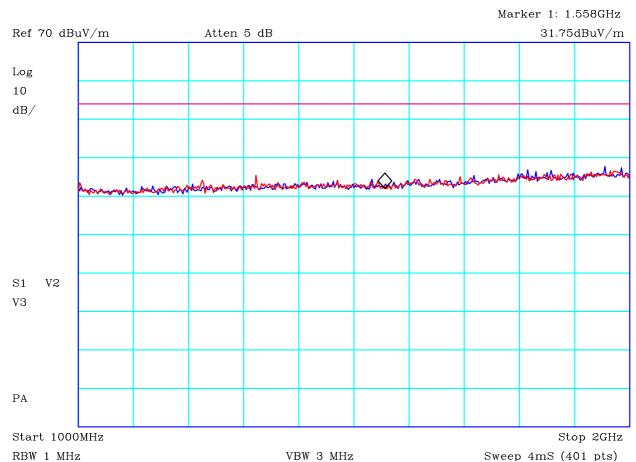
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#### PLOT 78 Radiated Emissions - STP8280 - Rx - 250MHz to 1GHz

Company:	Sepura		Product:	STP8280	
Date:	06/06/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@3m		Limit2:		
Limit3:			Limit4:		
STP8280 Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	th horizontal and	vertical.		
Facility:	Anech_2	Height	1.5	Mode:	2
Distance	3m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H25214D7		

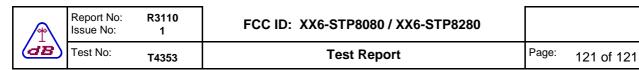


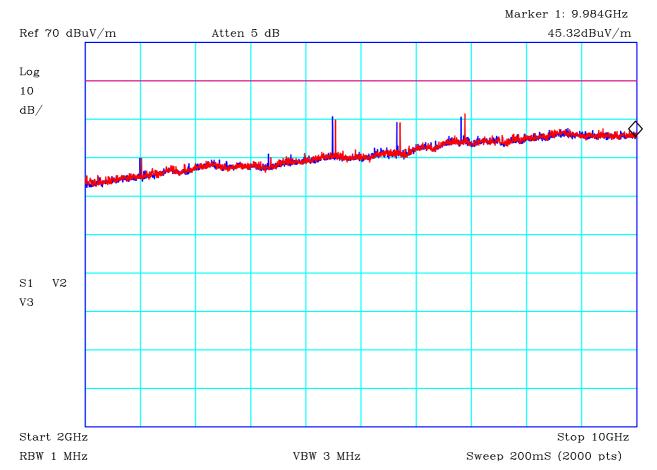


CF1:A23\_3m\_100806 CF2:CBL059\_CBL018\_CBL065\_CBL060\_100806 CF3:PRE3\_110113 CF4:RFF15\_110112

### PLOT 79 Radiated Emissions - STP8280 - Rx - 1GHz to 2GHz

Company:	Sepura		Product:	STP8280	
Date:	01/06/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@3m		Limit2:		
Limit3:			Limit4:		
STP8280 Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	th horizontal and ve	ertical.		
Facility:	Anech_2	Height 1	m	Mode:	2
Distance	3m	Polarisation \	/+H	Modification State:	1
Angle	0-360	File: I	125016CC		
					•





CF1:A23\_3m\_100806 CF2:PRE3\_110113 CF3:CBL049\_110107 CF4:RFF22\_110221

## PLOT 80 Radiated Emissions - STP8280 - Rx - 2GHz to 10GHz

Company:	Sepura		Product:	STP8280	
Date:	30/05/2012		Test Eng:	Dave Smith	
Method:	ANSI C63.4		Method:		
Limit1:(VIO)	FCC_B@1.5n	า	Limit2:		
Limit3:			Limit4:		
STP8280 Receive mode. Blue: 862MHz Red 869MHz	Maximum of bo	th horizontal and v	vertical.		
Facility:	Anech_2	Height	1m	Mode:	2
Distance	1.5m	Polarisation	V+H	Modification State:	1
Angle	0-360	File:	H2430764		