

Report Reference ID:	372837-4TRFWL
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Test specification:	Title 47 – Telecommunication Chapter I – Federal Communications Commission Subchapter B – Common carrier services Part 101 – Fixed Microwave Services
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Applicant:	TEKO Telecom Srl. Via Meucci, 24/a I-40024 Castel S. Pietro Terme (BO) (Italy)	
Apparatus:	Medium Power Remote Unit	
Model:	TRU7FL8P9PWM/AC-WT	
FCC ID:	XM2-MP7FL8P9PP	

Testing laboratory:	Nemko Italy Spa Via del Carroccio, 4 20853 Biassono (MB) – Italy Telephone: +39 039 2201201 Facsimile: +39 039 2201221
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	Name and title	Date
Tested by:	Bulun Poul  P. Barbieri, Wireless/EMC Specialist	06/24/2019
Reviewed by:	R. Giampaglia, Wireless/EMC Specialist	06/24/2019

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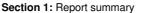
# Table of contents

Section 1:	Report summary4 Test specification	4
1.2	Statement of compliance	4
1.3	Exclusions	4
1.4	Registration number	4
1.5	Test report revision history	4
1.6	Limits of responsibility	4
<b>Section 2:</b> 2.1	Summary of test results5 FCC Part 27, test results	5
<b>Section 3:</b> 3.1	Equipment under test (EUT) and application details6 Applicant details6	6
3.2	Modular equipment	6
3.3	Product details	6
3.4	Application purpose	6
3.5	Composite/related equipment	7
3.6	Sample information	7
3.7	EUT technical specifications	7
3.8	Accessories and support equipment	8
3.9	Operation of the EUT during testing	9
3.10	EUT setup diagram	9
Section 4: 4.1	Engineering considerations 10  Modifications incorporated in the EUT	10
4.2	Deviations from laboratory tests procedures	
4.3	Technical judgment	
<b>Section 5:</b> 5.1	Test conditions	11
5.2	Test conditions, power source and ambient temperatures	11
5.3	Measurement uncertainty	12
5.4	Test equipment	13
<b>Appendix</b> A	<b>A: Test results</b>	14
Clause 935	210 D05v01r01 (3.3) Out of band rejection	15
Clause 935	210 D05v01r01 (3.4) Occupied bandwidth	16
Clause 101	.113 Peak output power at RF antenna connector	19
Clause 101	.111 Spurious emissions at RF antenna connector	22





Clause 101.111 Radiated Spurious emissions	32
Appendix B: Block diagrams of test set-ups Appendix C: EUT Photos	38 39





# Section 1: Report summary

## 1.1 Test specification

Specifications Pa

Part 101 - Fixed Microwave Services

# 1.2 Statement of compliance

## Compliance

In the configuration tested the EUT was found compliant

Yes ⊠

This report contains an assessment of apparatus against specifications based upon tests carried out on samples submitted at Nemko Spa. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 101. Radiated tests were conducted in accordance with ANSI C63.26-2015.

No □

#### 1.3 Exclusions

Exclusions

None

# 1.4 Registration number

Test site FC0	)
ID number	

682159

# 1.5 Test report revision history

Revision #	Details of changes made to test report
TRF	Original report issued
R1TRF	

# 1.6 Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

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# Section 2: Summary of test results

2.1 FCC Part 27, test results			
Part	Methods	Test description	Verdict
	§ 935210 D05v01r03 (3.2)	AGC threshold	Pass
	§ 935210 D05v01r03 (3.3)	Out of band rejection	Pass
	§ 935210 D05v01r03 (3.4)	Occupied bandwidth	Pass
§101.113	§ 935210 D05v01r03 (3.5)	Peak output power at RF antenna connector	Pass
§101.111	§ 935210 D05v01r03 (3.6)	Spurious emissions at RF antenna connector	Pass
§101.111	§ 935210 D05v01r03 (3.8)	Radiated spurious emissions	Pass
§101.107	§ 935210 D05v01r03 (3.7)	Frequency stability	N/A a)

#### Notes:

a) NOT APPLICABLE: Modulation/frequency conversion circuitry not in use. No frequency change in EUT (input and output have same frequency)



Specification: FCC 101

# Section 3: Equipment under test (EUT) and application details

3.1 Applicant of	details	
Applicant	Name:	Teko Telecom Srl
complete	Federal	
business name	Registration	0018963462
	Number (FRN):	
	Grantee code	XM2
Mailing address	Address:	Via Meucci, 24/a
· ·	City:	Castel S. Pietro Terme
	Province/State:	Bologna
	Post code:	40024
	Country:	Italy
		- Towny
3.2 Modular ed		
a) Single modular	Single modular appro	
approval	Yes 🗌	No 🗵
b) Limited single	Limited single modular approval	
modular approval	Yes 🗌	No 🖂
3.3 Product de	tails	
FCC ID	Grantee code:	XM2
	Product code:	-MP7FL8P9PP
Equipment class	BOS	
	DO3	
Description of	Booster	
		TDUTEL SPORWWAC WIT
Description of	Booster	TRU7FL8P9PWM/AC-WT
Description of product as it is	Booster Model	TRU7FL8P9PWM/AC-WT 1012793001
Description of product as it is	Booster Model name/number:	
Description of product as it is	Booster Model name/number: Serial number:	
Description of product as it is marketed	Booster Model name/number: Serial number:	1012793001
Description of product as it is marketed  3.4 Application	Booster Model name/number: Serial number:  purpose  Original certi	1012793001
Description of product as it is marketed  3.4 Application Type of	Booster Model name/number: Serial number:  purpose  Original certi	fication entification of presently authorized equipment
Description of product as it is marketed  3.4 Application Type of	Booster  Model name/number: Serial number:  Durpose  Original certi Change in id Original FCC	fication entification of presently authorized equipment
Description of product as it is marketed  3.4 Application Type of	Booster  Model name/number: Serial number:  Durpose  Original certi Change in id Original FCC	fication entification of presently authorized equipment CID: Grant date:



Specification: FCC 101

# Section 3: Equipment under test

3.5 Composite/related equipment			
a) Composite	The EUT is a composite device subject to an additional equipment		
equipment	authorization		
	Yes ⊠ No □		
b) Related	The EUT is part of a system that operates with, or is marketed with,		
equipment	another device that requires an equipment authorization		
	Yes □ No ⊠		
c) Related FCC ID	If either of the above is "yes":		
	$\square$ has been granted under the FCC ID(s) listed below:		
	is in the process of being filled under the FCC ID(s) listed below:		
	is pending with the FCC ID(s) listed below:		
	has a mix of pending and granted statues under the FCC ID(s)		
	listed below:		
	i FCC ID: XM2-MP7FL8P9PP		
	ii FCC ID:		

3.6 Sample inf	ormation
Receipt date:	05/27/2019
Nemko sample ID number:	

3.7 EUT technical specifications			
Operating band:	Down Link: 928-929 MHz		
Operating frequency:	Narrowband		
Modulation type:	P25, FM		
Occupied bandwidth:	Standard		
Channel spacing:	standard		
Emission designator:	F1E, F1D, F3E		
RF Output	Down Link: 33dBm (2,00W) Up Link: N.A. (The EUT does not transmit over the air in the up-link direction)		
Gain	Down Link: 38dB Up Link: N.A. (The EUT does not transmit over the air in the up-link direction)		
Antenna type:	External Antenna is not provided, equipment that has an external 50 $\Omega$ RF connector		
Power source:	100-240 Vac		



Specification: FCC 101

# Section 3: Equipment under test

3.8 Accessories and support equipment				
	lentifies accessories used to exercise the EUT during testing:			
Item # 1				
Type of equipment:	Master Unit - Subrack			
Brand name:	Teko Telecom srl			
Model name or number:	SUB-TRX-PSU			
Serial number:	101083001			
Nemko sample number:				
Connection port:				
Cable length and type:				
Item # 2				
Type of equipment:	Master Unit – Management Module			
Brand name:	Teko Telecom srl			
Model name or number:	TSPV-R			
Serial number:	110942253			
Nemko sample number:				
Connection port:	LAN port			
Cable length and type:				
Item # 3				
Type of equipment:	Master Unit – Optical Module			
Brand name:	Teko Telecom srl			
Model name or number:	TTRU4W-S-M			
Serial number:	110679007			
Nemko sample number:				
Connection port:	DL/UL RF connector (to connect to the base station)			
	Optical port (to connect to remote unit)			
Cable length and type:				
Item # 4				
Type of equipment:	Master Unit – Power Supply			
Brand name:	Teko Telecom srl			
Model name or number:	TPSU/AC			
Serial number:	081063004			
Nemko sample number:				
Connection port:				
Cable length and type:				



Specification: FCC 101

# 3.9 Operation of the EUT during testing

Details: In down-link direction, normal working at max gain with max RF power

output.

### 3.10 EUT setup diagram

In this system, Remote Unit is the EUT. Master Unit includes only management module and optical module (to convert RF signal in optical signal in down link direction and viceversa optical signal in RF signal in up link direction). As described in "Operational description", master unit is connected directly to base station, so the system doesn't use another equipment (under another FCC ID) to exercise the EUT. Signal generator is linked directly to the RF connector of optical module in the Master Unit.

#### Test setup for output power, occupied bandwidth, spurious emissions:



#### **Procedure**

Connect the signal modulated generator to the input of the EUT, so that the EUT works at the max gain. Raise the input level to the EUT until reach the maximum output power. Connect the spectrum analyzer to the RF output connector of the EUT.



**Judgment** 

None

Specification: FCC 101

Product: TRU7FL8P9PPWE/AC-WT

4.1 Modifications incorporated in the EUT

Modifications

Modifications performed to the EUT during this assessment None 
Yes ☐, performed by Client ☐ or Nemko ☐
Details:

4.2 Deviations from laboratory tests procedures

Deviations

Deviations from laboratory test procedures
None ☑ Yes ☐ - details are listed below:

4.3 Technical judgment



Specification: FCC 101

# Section 5: Test conditions

# 5.1 Deviations from laboratory tests procedures

No deviations were made from laboratory test procedures.

5.2 Test conditions, power source and ambient temperatures			
Normal temperature, humidity and air pressure test conditions	Temperature: 15–30 °C Relative humidity: 20–75 % Air pressure: 86–106 kPa		
	When it is impracticable to carry out tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests shall be recorded and stated.		
Power supply range:	The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages ±5 %, for which the equipment was designed.		



Specification: FCC 101

## Section 5: Test conditions, continued

5.3 Measurement uncertainty						
EUT	Туре	Test	Range and Setup features	Measurement Uncertainty	Notes	
		Frequency error	0.001 MHz ÷ 40 GHz	0.08 ppm	(1)	
			10 kHz ÷ 30 MHz	1.0 dB	(1)	
		Carrier power	30 MHz ÷ 18 GHz	1.5 dB	(1)	
		RF Output Power	18 MHz ÷ 40 GHz	3.0 dB	(1)	
		Adjacent channel power	1 MHz ÷ 18 GHz	1.6 dB	(1)	
			10 kHz ÷ 26 GHz	3.0 dB	(1)	
		Conducted spurious emissions	26 GHz ÷ 40 GHz	4.5 dB	(1)	
		Intermodulation attenuation	1 MHz ÷ 18 GHz	2.2 dB	(1)	
		Attack time – frequency behaviour	1 MHz ÷ 18 GHz	2.0 ms	(1)	
		Attack time – power behaviour	1 MHz ÷ 18 GHz	2.5 ms	(1)	
		Release time – frequency behaviour	1 MHz ÷ 18 GHz	2.0 ms	(1)	
	Conducted	Release time – power behaviour	1 MHz ÷ 18 GHz	2.5 ms	(1)	
Transmitter	Conducted	Transient behaviour of the transmitter– Transient frequency behaviour	1 MHz ÷ 18 GHz	0.2 kHz	(1)	
		Transient behaviour of the transmitter – Power level slope	1 MHz ÷ 18 GHz	9%	(1)	
		Frequency deviation - Maximum permissible frequency deviation	0.001 MHz ÷ 18 GHz	1.3%	(1)	
		Frequency deviation - Response of the transmitter to modulation frequencies above 3 kHz	0.001 MHz ÷ 18 GHz	0.5 dB	(1)	
		Dwell time	-	3%	(1)	
		Hopping Frequency Separation	0.01 MHz ÷ 18 GHz	1%	(1)	
		Occupied Channel Bandwidth	0.01 MHz ÷ 18 GHz	2%	(1)	
		Modulation Bandwidth	0.01 MHz ÷ 18 GHz	2%	(1)	
		Radiated spurious emissions	10 kHz ÷ 26.5 GHz	6.0 dB	(1)	
	Radiated	radiated spurious ciriissions	26.5 GHz ÷ 40 GHz	8.0 dB	(1)	
	Tiadiated	Effective radiated power	10 kHz ÷ 26.5 GHz	6.0 dB	(1)	
		transmitter	26,5 GHz ÷ 40 GHz	8.0 dB	(1)	
		Radiated spurious emissions	10 kHz ÷ 26.5 GHz	6.0 dB	(1)	
	Radiated	riadiated spurious erriissions	26.5 GHz ÷ 40 GHz	8.0 dB	(1)	
Receiver		Sensitivity measurement	1 MHz ÷ 18 GHz	6.0 dB	(1)	
	Conducted	Conducted spurious emissions	10 kHz ÷ 26 GHz	3.0 dB	(1)	
		Conducted Spanious emissions	26 GHz ÷ 40 GHz	4.5 dB	(1)	

<sup>(1)</sup> The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2 which has been derived from the assumed normal probability distribution with infinite degrees of freedom and for a coverage probability of 95 %



Specification: FCC 101

5.4 Test equ	ipment			
Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.
Vector Signal Generator	Agilent	E4432B ESG	GB38450308	08/2019
Vector Signal Generator	Agilent	E4438C ESG	MY45094485	08/2019
Spectrum Analyzer	Agilent	N9030A PXA	MY53120882	12/2019
Trilog Broad Band Antenna 25-8000 MHz	Schwarzbeck	VULB 9162	VULB 9162-25	07/2021
Antenna 1-18 GHz	Schwarzbeck	STLP 9148	STPL 9148-123	07/2021
Double ridge horn antenna (4 ÷ 40 GHz)	RFSpin	DRH40	061106A40	02/2020
Broadband preamplifier (18 ÷ 40 GHz)	Miteq	JS44-18004000-35-8P- R	1.627	09/2019
Broadband preamplifier 1-18 GHz	Schwarzbeck	BBV 9718	9718-137	08/2019
EMI receiver 20 Hz ÷ 8 GHz	R&S	ESU8	100202	01/2020
EMI receiver 2 Hz ÷ 44 GHz	R&S	ESW44	101620	05/2019
Hydraulic revolving platform	Nemko	RTPL 01	4.233	NCR
Turning-table	R&S	HCT	835 803/03	NCR
Antenna mast	R&S	HCM	836 529/05	NCR
Controller	R&S	HCC	836 620/7	NCR
Semi-anechoic chamber	Nemko	10m semi-anechoic chamber	530	09/2021
Shielded room	Siemens	10m control room	1947	NCR
Semi-anechoic chamber	Nemko	10m semi-anechoic chamber	70	NCR
Shielded Room	Siemens	3m semi-anechoic chamber	3	NCR
Motor controller	Emco	1051-25	9012-1559	NCR
Motor controller	Emco	1061-1.521	9012-1508	NCR
Antenna Tower	Emco	2071-2	9601-1940	NCR
Controller pole/table	Emco	2090	9511-1099	NCR

Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use (\*) Equipment supplied by manufacturer's



Specification: FCC 101

# Appendix A: Test results

# Clause 935210 D05v01r01 (3.2) AGC threshold

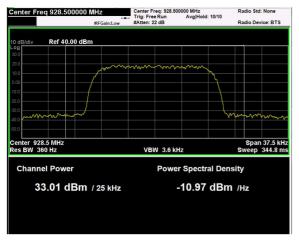
Measure of EUT AGC Threshold

Test date: 05/27/2019 to 06/24/2019

Test results: Pass

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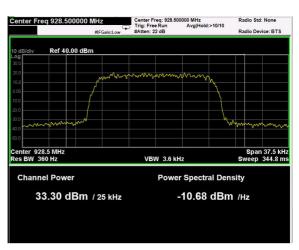
#### Test data



16k signal, nominal input signal



P25 signal, nominal input signal



16k signal, nominal input signal +1 dB



P25 signal, nominal input signal +1 dB



Specification: FCC 101

# Clause 935210 D05v01r01 (3.3) Out of band rejection

Out of Band Rejection – Test for rejection of out of band signals.

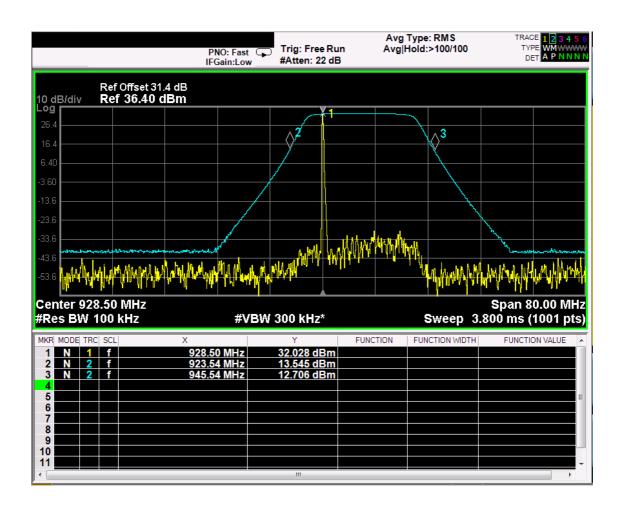
Test date: 05/27/2019 to 06/24/2019

Test results: Pass

#### Special notes

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#### Test data





Specification: FCC 101

# Clause 935210 D05v01r01 (3.4) Occupied bandwidth

A 26 dB bandwidth measurement shall be performed on the input signal and the output signal; alternatively, the 99% OBW can be measured and used.

Test date: 05/27/2019 to 06/24/2019

Test results: Pass

#### Special notes

-

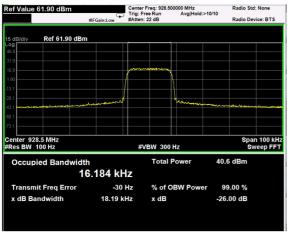
sults Product: TRU7FL8P9PWM/AC-WT

Specification: FCC 101

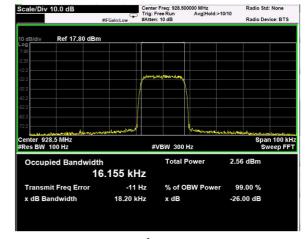
## Clause 935210 D05v01r01 (3.4) Occupied bandwidth, continued

#### Test data

## 16k signal, nominal input signal



**Output** 

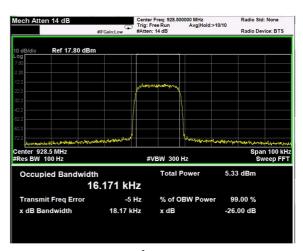


Input

#### 16k signal, nominal input signal + 3dB



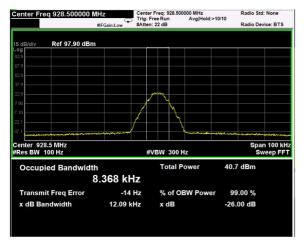


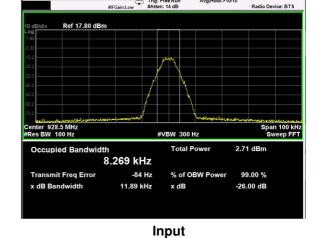




Specification: FCC 101

#### P25 signal, nominal input signal





**Output** 

P25 signal, nominal input signal + 3dB



Center Freq 928.500000 MHz
#FGain.Low Trig: Free Mun Avg|Hold:>10/10
Radio Std: None
Radio Device: BTS

10 dB/div Ref 17.80 dBm

20 dB/div Ref 17.80 dBm

10 dB/div Ref 17.80 dBm

20 dB/div Ref 17

Output Input



Specification: FCC 101

# Clause 101.113 Peak output power at RF antenna connector

#### § 101.113 Transmitter power limitations.

(a) On any authorized frequency, the average power delivered to an antenna in this service must be the minimum amount of power necessary to carry out the communications desired. Application of this principle includes, but is not to be limited to, requiring a licensee who replaces one or more of its antennas with larger antennas to reduce its antenna input power by an amount appropriate to compensate for the increased primary lobe gain of the replacement antenna(s). In no event shall the average equivalent isotropically radiated power (EIRP), as referenced to an isotropic radiator, exceed the values specified below. In cases of harmful interference, the Commission may, after notice and opportunity for hearing, order a change in the effective radiated power of this station. Further, the output power of a transmitter on any authorized frequency in this service may not exceed the following table.

Test date: 05/27/2019 to 06/24/2019

Test results: Pass

Special notes

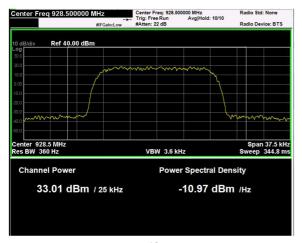
Specification: FCC 101

## Clause 101.113 Peak output power at RF antenna connector

#### Test data

## Nominal input signal

Test data				
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)
Down-link	16k	928.5	33.01	2.00
Down-link	P25	928.5	33.04	2.01



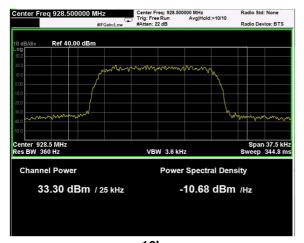


16k P25



## Nominal input signal + 3dB

Test data				
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)
Down-link	16k	928.5	33.30	2.14
Down-link	P25	928.5	33.15	2.06





16k P25



# Clause 101.111 Spurious emissions at RF antenna connector

(a) The mean power of emissions must be attenuated below the mean output power of the transmitter in accordance with the following schedule:

Appendix A: Test results

- (5) When using transmissions employing digital modulation techniques on the 900 MHz multiple address frequencies with a 12.5 KHz bandwidth, the power of any emission must be attenuated below the unmodulated carrier power of the transmitter (P) in accordance with the following schedule:
- (i) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 2.5 KHz up to and including 6.25 KHz: At least 53 log10 (fd/2.5) decibels;
- (ii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 6.25 KHz up to and including 9.5 KHz: At least 103 log10 (fd/3.9) decibels:
- (iii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 9.5 KHz up to and including 15 KHz: At least 157 log10 (fd/5.3) decibels; and
- (iv) On any frequency removed from the center of the authorized bandwidth by a displacement frequency greater than 15 KHz: At least 50 plus 10 log10(P) or 70 decibels, whichever is the lesser attenuation.
- (6) When using transmissions employing digital modulation techniques on the 900 MHz multiple address frequencies with a bandwidth greater than 12.5 KHz, the power of any emission must be attenuated below the unmodulated carrier power of the transmitter (P) in accordance with the following schedule:
- (i) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 5 KHz up to and including 10 KHz: At least 83 log10 (fd/5) decibels:
- (ii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 10 KHz up to and including 250 percent of the authorized bandwidth: At least 116 log10 (fd/6.1) decibels or 50 plus 10 log10 (P) or 70 decibels, whichever is the lesser attenuation: and
- (iii) On any frequency removed from the center of the authorized bandwidth by more that 250 percent of the authorized bandwidth: At least 43 plus 10 log10 (output power in watts) decibels or 80 decibels, whichever is the lesser attenuation.

Test results: Pass	
Special notes	

Test date: 05/27/2019 to 06/24/2019



# Clause 101.111 Spurious emissions at RF antenna connector, continued

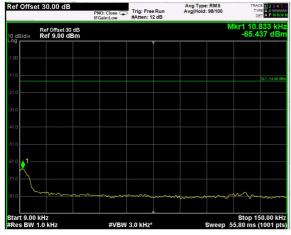
Test data			
See Plots below			
Spurious emissions me	easurement results:		
Frequency (MHz)	Spurious emission (dBm)	Limit (dBm)	Margin (dB)
Low channel			
First channel	Negligible	-13	
Mid channel	1		
928,5 MHz	Negligible	-13	
High channel			
Last channel	Negligible	-13	



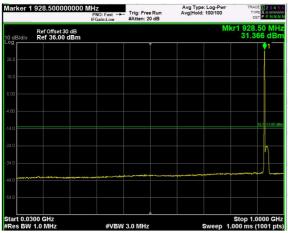
#### Test data, continued: spurious emissions at antenna terminal

## 16k signal

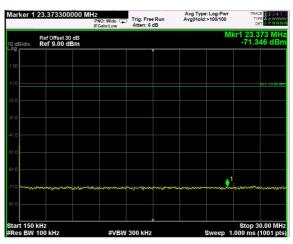
(Plots are referred to modulated carrier at the Middle Channel)



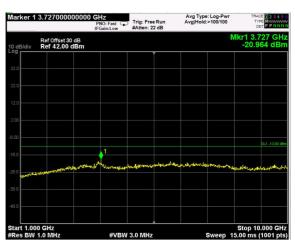
9KHz-150KHz



30MHz-1GHz



150KHz-30MHz

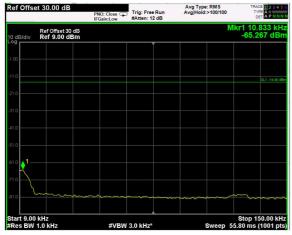


1GHz-10GHz

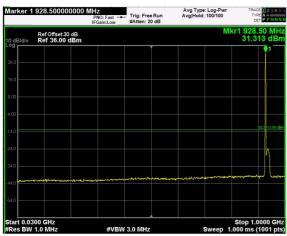


#### P25 signal

(Plots are referred to modulated carrier at the Middle Channel)



9KHz-150KHz



30MHz-1GHz



150KHz-30MHz

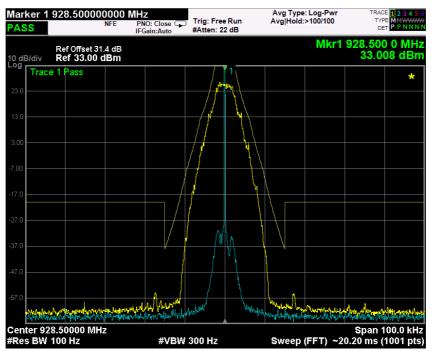


1GHz-10GHz



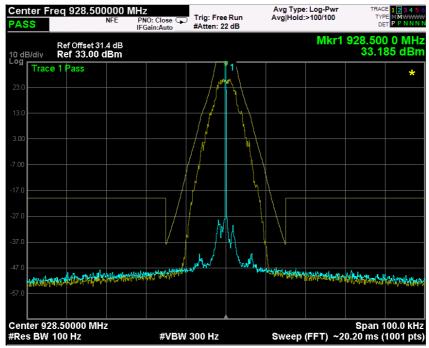
#### Test data, continued: Mask

## P25 signal, nominal input signal (928,5MHz)



Mask with BW < 12,5kHz signal

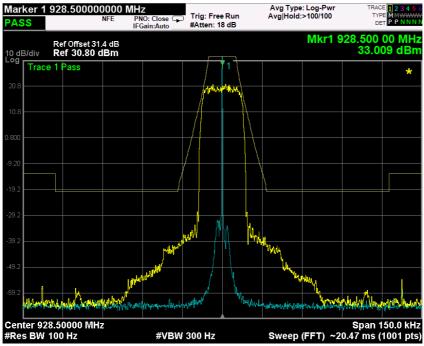
#### P25 signal, nominal input signal + 3dB (928,5MHz)



Mask with BW < 12,5KHz signal

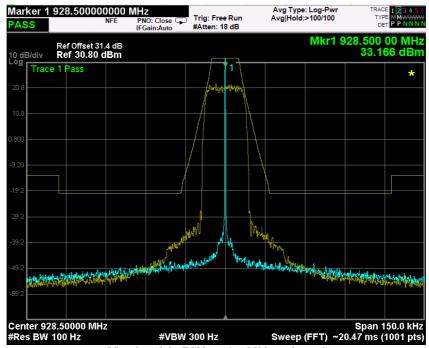


## 16k signal, nominal input signal (928,5MHz)



Mask with BW >12,5KHz signal

#### 16k signal, nominal input signal + 3dB (928,5MHz)

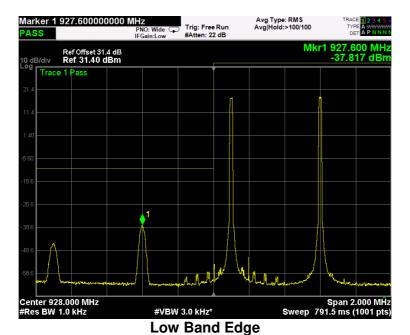


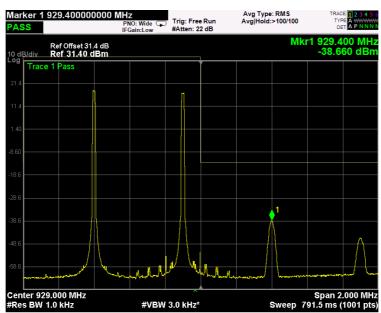
Mask with BW >12,5KHz signal



#### Test data, continued: band edges Inter modulation

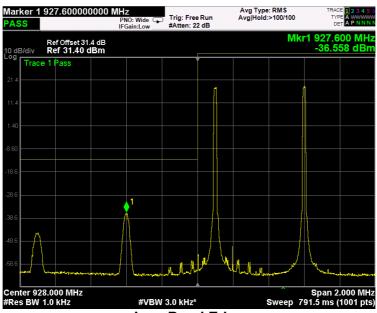
#### 16k signal, nominal input signal



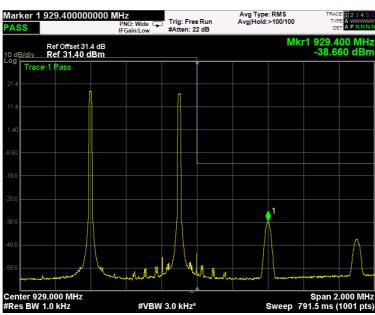




## 16k signal, nominal input signal + 3dB



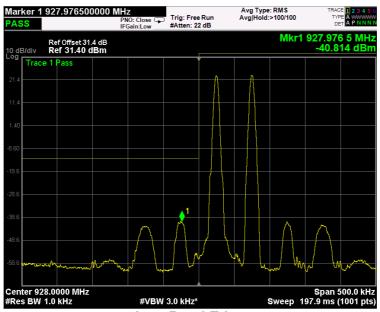
**Low Band Edge** 



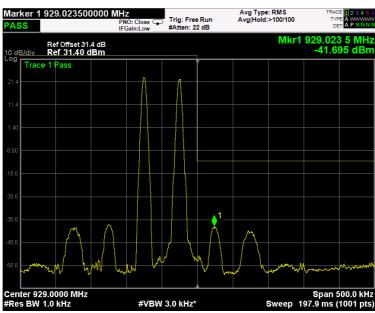
**High Band Edge** 



## P25 signal, nominal input signal



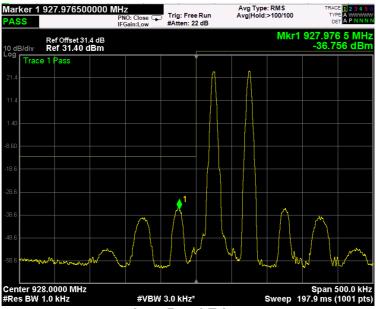
**Low Band Edge** 



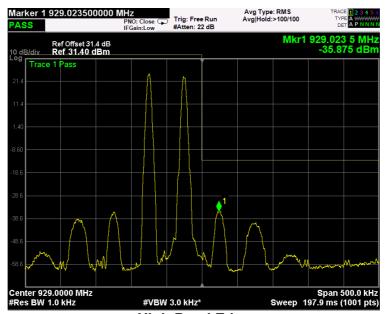
**High Band Edge** 



## P25 signal, nominal input signal + 3dB



**Low Band Edge** 



**High Band Edge** 



Specification: FCC 101

# Clause 101.111 Radiated Spurious emissions

- (a) The mean power of emissions must be attenuated below the mean output power of the transmitter in accordance with the following schedule:
- (5) When using transmissions employing digital modulation techniques on the 900 MHz multiple address frequencies with a 12.5 KHz bandwidth, the power of any emission must be attenuated below the unmodulated carrier power of the transmitter (P) in accordance with the following schedule:
- (i) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 2.5 KHz up to and including 6.25 KHz: At least 53 log10 (fd/2.5) decibels;
- (ii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 6.25 KHz up to and including 9.5 KHz: At least 103 log10 (fd/3.9) decibels;
- (iii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 9.5 KHz up to and including 15 KHz: At least 157 log10 (fd/5.3) decibels; and
- (iv) On any frequency removed from the center of the authorized bandwidth by a displacement frequency greater than 15 KHz: At least 50 plus 10 log10(P) or 70 decibels, whichever is the lesser attenuation.
- (6) When using transmissions employing digital modulation techniques on the 900 MHz multiple address frequencies with a bandwidth greater than 12.5 KHz, the power of any emission must be attenuated below the unmodulated carrier power of the transmitter (P) in accordance with the following schedule:
- (i) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 5 KHz up to and including 10 KHz: At least 83 log10 (fd/5) decibels;
- (ii) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in KHz) of more than 10 KHz up to and including 250 percent of the authorized bandwidth: At least 116 log10 (fd/6.1) decibels or 50 plus 10 log10 (P) or 70 decibels, whichever is the lesser attenuation; and
- (iii) On any frequency removed from the center of the authorized bandwidth by more that 250 percent of the authorized bandwidth: At least 43 plus 10 log10 (output power in watts) decibels or 80 decibels, whichever is the lesser attenuation.

Test date: 05/27/2019 to 06/24/2019
Test results: Pass
Special notes



Specification: FCC 101

#### Clause 101.111 Radiated spurious emissions, continued

#### Test data

The D.U.T. was positioned according to the radiated emissions set-up

The D.U.T. antenna connector was terminated by a 50  $\Omega$  shielded dummy load.

The spectrum was searched from 30 MHz to 1 GHz (RBW 100 kHz) & 1 GHz (RBW 1 MHz) to the tenth harmonic of the carrier.

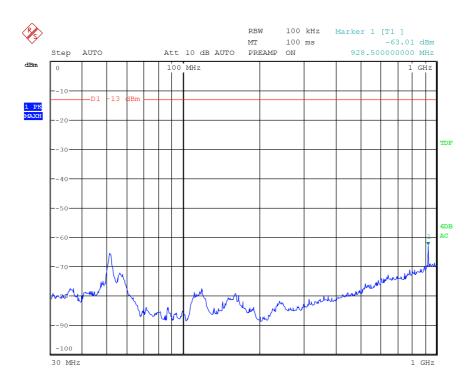
There were no emissions detected above the noise floor which was at least 20 dB below the specification limit.

Spurious emissions measurement results:

	is measurement rest			
Frequency	Polarization.	Field strength	Limit	Margin
(MHz)	V/H	(dBm)	(dBm)	(dB)
Low channel	T	Г	T	Т
First Channel	V/H	Negligible	-13	
Mid channel				
928.5	V/H	Negligible	-13	
High channel				
Last Channel	V/H	Negligible	-13	

Note: Field strength includes correction factor of antenna, cable loss, amplifier, and attenuators where applicable.

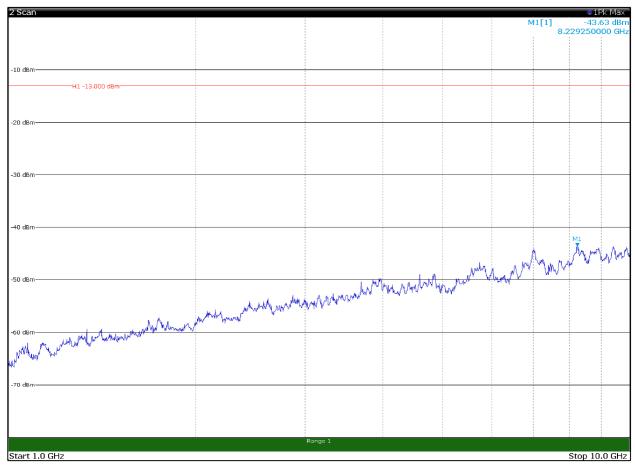




Date: 19.JUN.2019 12:00:55

30MHz-1GHz - H Pol



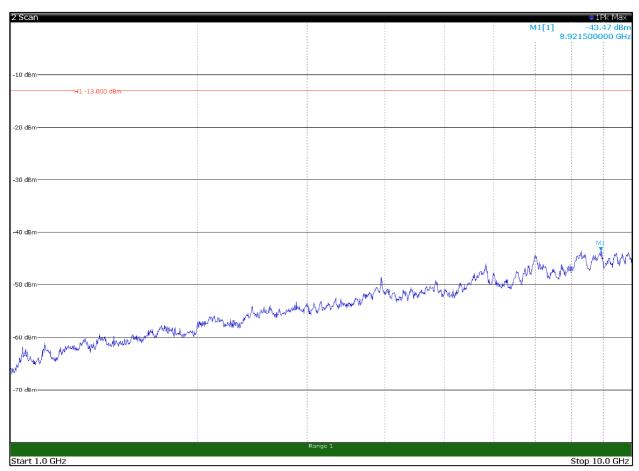


Page 1/1

30MHz-1GHz - V Pol

10:11:13 18.06.2019

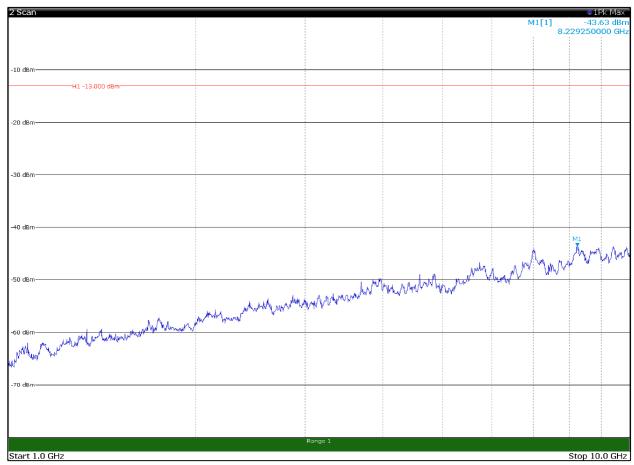




10:11:46 18:06:2019 Page 1/1

1GHz-10GHz - H Pol



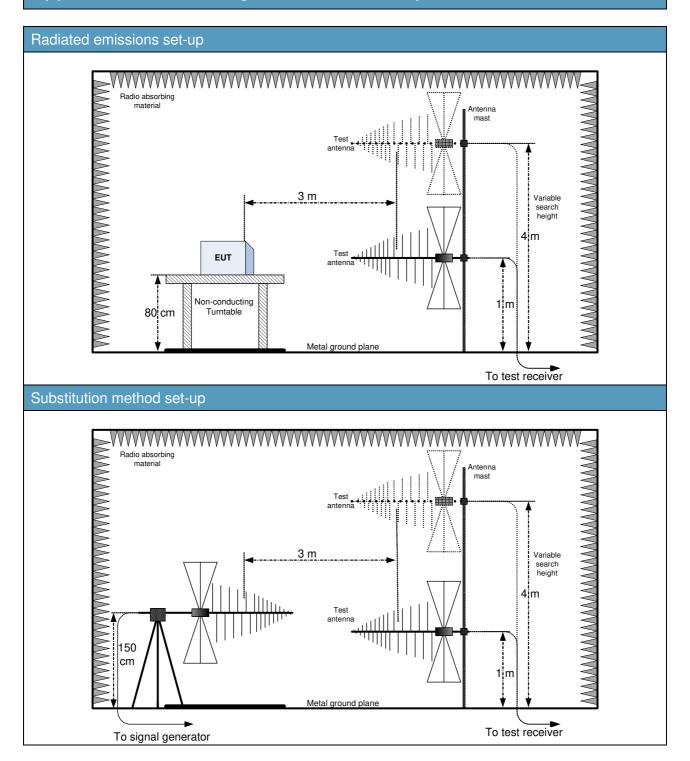


10:11:13 18:06:2019 Page 1/1

1GHz-10GHz - V Pol



# Appendix B: Block diagrams of test set-ups







# Appendix C: EUT Photos

# Photo Set up









# Photo EUT









Appendix C: EUT Photos



Specification: FCC 101



**END OF REPORT**