

Report Reference ID:	REP074707	
Test specification:	Title 47 – Telecommunication Chapter I – Federal Communications Commission Subchapter B – Common carrier services Part 27 – Miscellaneous wireless communications services	
Applicant:	TEKO Telecom Srl. Via Meucci, 24/a 40024 – Castel S. Pietro Terme (BO) – Italy	
Apparatus:	Medium Power Remote Unit	
Model:	TRU67E8AEWM/AC-WT	
FCC ID:	XM2-MP67E8AE	
	Nomko Italy Spa	

	Nemko Italy Spa
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	Name and title	Date
Tested by:	Bault P. Barbieri, Wireless/EMC Specialist	2024-12-24
Reviewed by:	R. Giampaglia, Laboratory manager	2024-12-24



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## Section 1: Report summary

1.1 Test spe	cification
Specifications         Part 27 – Miscellaneous wireless communications services	

1.2 Stateme	nt of compliance
Compliance	In the configuration tested the EUT was found compliant Yes ⊠ No □ Test method: ANSI C63.26-2015, 935210 D05 Measurements guidance for industrial and non-consumer signal booster, repeater and amplifier devices v01r04.

1.3 Exclusions		
Exclusions	None	

### 1.4 Registration number

J	
FCC site	682159
number	

#### 1.5 Test report revision history

Revision #	Details of changes made to test report
REP074707	Original report issued

#### 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

§ 935210 D05v01r04 (3.2) § 935210	AGC threshold	Pass
D05v01r04 (3.3)	Out of band rejection	Pass
§ 935210 D05v01r04 (3.4)	Occupied bandwidth	Pass
§ 935210 D05v01r04 (3.5)	Peak output power at RF antenna connector	Pass
§ 935210 D05v01r04 (3.6)	Spurious emissions at RF antenna connector	Pass
§ 935210 D05v01r04 (3.8)	Radiated spurious emissions	Pass
§ 935210 D05v01r03 (3.8)	Radiated spurious emissions within 1559–1610 MHz band	Pass
§ 935210 D05v01r04 (3.7)	Frequency stability	N/A a)
	005v01r04 (3.4) 935210 005v01r04 (3.5) 935210 005v01r04 (3.6) 935210 005v01r04 (3.8) 935210 005v01r04 (3.8) 935210 005v01r03 (3.8) 935210	D05v01r04 (3.4)Peak output power at RF antenna connector005v01r04 (3.5)Peak output power at RF antenna connector005v01r04 (3.5)Spurious emissions at RF antenna connector005v01r04 (3.6)Radiated spurious emissions005v01r04 (3.8)Radiated spurious emissions within 1559–1610005v01r03 (3.8)MHz band935210Frequency stability



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

3.1 Applicant 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	

3.2 Modular ed	quipment	
a) Single modular	Single modular approval	
approval	Yes 🗌 No 🖂	
b) Limited single	Limited single modular approval	
modular approval	Yes 🗌 No 🖂	

3.3 Product details		
FCC ID	Grantee code: XM2	
	Product code:	-MP67E8AE
Equipment class	B2I	
Description of	Booster	
product as it is marketed	Model name/number:	TRU67E8AEWM/AC-WT
	Serial number:	1012791001

3.4 Application	n purpo	ose	
Type of		Original certification	
application		Change in identification of presently authorized equipment	
		Original FCC ID: Grant date:	
	$\boxtimes$	Class II permissive change or modification of presently authorized	
		equipment	



#### Section 3: Equipment under test

3.5 Composite	3.5 Composite/related equipment		
a) Composite equipment	The EUT is a composite device subject to an additional equipment authorization		
equipment	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":		
	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-MP67E8AE		
	ii FCC ID:		

3.6 Sample information	
Receipt date:         2024-12-13	
Nemko sample ID number:	PRJ007185400003

3.7 EUT technical specifications		
Operating band:	Down Link 746–758 MHz, Up Link 776-788 MHz	
Operating frequency:	Wideband	
Modulation type:	5G NR (QAM and QPSK)	
Occupied bandwidth:	5G NR: 5 MHz to 10 MHz	
Channel spacing:	standard	
Emission designator:	5G NR: D7W	
RF Output	Down Link: 33dBm (2W) 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	



#### Section 3: Equipment under test

3.8 Accessories and support equipment The following information identifies 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:       1007067005         Nemko sample number:		
Model name or number:         SUB-TRX-PSU           Serial number:         1007067005           Nemko sample number:	Type of equipment:	Master Unit - Subrack
Serial number:         1007067005           Nemko sample number:		
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-EBB         Serial number:       1007944030         Nemko sample number:          Connection port:       LAN port         Cable length and type:          Connection port:       LAN port         Cable length and type:          Item # 3       Type of equipment:         Model name or number:       TRRU4W-S-M         Serial number:       1000678019         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:	Serial number:	1007067005
Cable length and type:		
Item # 2         Type of equipment:       Master Unit – Management Module         Brand name:       Teko Telecom srl         Model name or number:       TSPV-EBB         Serial number:       1007944030         Nemko sample number:	Connection port:	
Type of equipment:Master Unit – Management ModuleBrand name:Teko Telecom srlModel name or number:TSPV-EBBSerial number:1007944030Nemko sample number:Connection port:LAN portCable length and type:Item # 3Type of equipment:Master Unit – Optical ModuleBrand name:Teko Telecom srlModel name or number:TTRU4W-S-MSerial number:10026678019Nemko sample number:Optical port (to connect to the base station) Optical port (to connect to remote unit)Cable length and type:Item # 4Type of equipment:Master Unit – Power SupplyBrand name:Teko Telecom srlModel name or number:DL/UL RF connector (to connect to the base station) Optical port (to connect to remote unit)Cable length and type:	Cable length and type:	
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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:       1008678019         Nemko sample number:          Connection port:       DL/UL RF connector (to connect to the base station)         Optical port (to connect to remote unit)       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:       100012284         Nemko sample number:          Connection port:	Model name or number:	TSPV-EBB
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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:       1008678019         Nemko sample number:          Connection port:       DL/UL RF connector (to connect to the base station)         Optical port (to connect to remote unit)       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:       100012284         Nemko sample number:          Connection port:	Nemko sample number:	
Item # 3         Type of equipment:       Master Unit – Optical Module         Brand name:       Teko Telecom srl         Model name or number:       TTRU4W-S-M         Serial number:       1008678019         Nemko sample number:          Connection port:       DL/UL RF connector (to connect to the base station)         Optical port (to connect to remote unit)       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:         Model name or number:       TPSU/AC         Serial number:       100012284         Nemko sample number:          Connection port:	Connection port:	LAN port
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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:       100012284         Nemko sample number:          Connection port:	Model name or 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:       100012284         Nemko sample number:          Connection port:	Serial number:	1008678019
Optical port (to connect to remote unit)Cable length and type:Item # 4Type of equipment:Master Unit – Power SupplyBrand name:Teko Telecom srlModel name or number:TPSU/ACSerial number:100012284Nemko sample number:Connection port:	Nemko sample number:	
Item # 4         Type of equipment:       Master Unit – Power Supply         Brand name:       Teko Telecom srl         Model name or number:       TPSU/AC         Serial number:       100012284         Nemko sample number:          Connection port:	Connection port:	
Type of equipment:Master Unit – Power SupplyBrand name:Teko Telecom srlModel name or number:TPSU/ACSerial number:100012284Nemko sample number:Connection port:	Cable length and type:	
Brand name:       Teko Telecom srl         Model name or number:       TPSU/AC         Serial number:       100012284         Nemko sample number:          Connection port:		
Model name or number:TPSU/ACSerial number:100012284Nemko sample number:Connection port:	Type of equipment:	Master Unit – Power Supply
Serial number:100012284Nemko sample number:Connection port:	Brand name:	Teko Telecom srl
Nemko sample number:        Connection port:	Model name or number:	TPSU/AC
Connection port:	Serial number:	100012284
	Nemko sample number:	
Cable length and type:	Connection port:	
	Cable length and type:	



#### Section 3: Equipment under test

3.9 Operation	of the EUT during testing
Details:	In down-link direction, normal working at max gain with max RF power output.

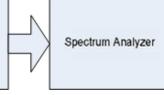
#### 3.10 EUT setup diagram

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 vice versa optical signal in RF signal in uplink 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.



# Section 4: Engineering considerations

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
Judgment	None



#### 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: 18–33 °C Relative humidity: 25–75 % 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 $\pm 5$ %, for which the equipment was designed.

#### 5.3 Measurement uncertainty

The measurement uncertainty was calculated for each test and quantity listed in this test report, according to CISPR 16-4-2 and other specific test standard and is documented in Nemko Spa working manual WML1002. The assessment of conformity for each test performed on the equipment is performed not taking into account the measurement uncertainty. The two following possible verdicts are stated in the report:

P (Pass) - The measured values of the equipment respect the specification limit at the points tested. The specific risk of false accept is up to 50% when the measured result is close to the limit. F (Fail) - One or more measured values of the equipment do not respect the specification limit at the points tested. The specific risk of false reject is up to 50% when the measured result is close to the limit.

Hereafter Nemko's measurement uncertainties are reported:



### Section 5: Test conditions, continued

EUT	Туре	Test	Range	Measurement Uncertainty	Notes	
		Frequency error	0.001 MHz ÷ 40 GHz	0.08 ppm	(1)	
			0.009 MHz ÷ 30 MHz	1.1 dB	(1)	
		Carrier power	30 MHz ÷ 18 GHz	1.5 dB	(1)	
		RF Output Power	18 MHz ÷ 40 GHz	3.0 dB	(1)	
			40 MHz ÷ 140 GHz	5.0 dB	(1)	
		Adjacent channel power	1 MHz ÷ 18 GHz	1.4 dB	(1)	
			0.009 MHz ÷ 18 GHz	3.0 dB	(1)	
		Conducted spurious emissions	18 GHz ÷ 40 GHz	4.2 dB	(1)	
		'	40 GHz ÷ 220 GHz	6.0 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)	
		Transient behaviour of the transmitter-				
Transmitter	Transient frequency behaviour	1 MHz ÷ 18 GHz	0.2 kHz	(1)		
	Transient behaviour of the transmitter – Power		00/	(4)		
		level slope	1 MHz ÷ 18 GHz	9%	(1)	
		Frequency deviation - Maximum permissible		4.00/		
	frequency deviation	0.001 MHz ÷ 18 GHz	1.3%	(1)		
		Frequency deviation - Response of the				
			transmitter to modulation frequencies above 3	0.001 MHz ÷ 18 GHz	0.5 dB	(1)
		kHz			. ,	
		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)	
			0.009 MHz ÷ 26.5 GHz	6.0 dB	(1)	
		Radiated spurious emissions	26.5 GHz ÷ 66 GHz	8.0 dB	(1)	
		'	66 GHz ÷ 220 GHz	10 dB	(1)	
	Radiated		10 kHz ÷ 26.5 GHz	6.0 dB	(1)	
		Effective radiated power transmitter	26.5 GHz ÷ 66 GHz	8.0 dB	(1)	
			66 GHz ÷ 220 GHz	10 dB	(1)	
			0.009 MHz ÷ 26.5 GHz	6.0 dB	(1)	
		Radiated spurious emissions	26.5 GHz ÷ 66 GHz	8.0 dB	(1)	
	Radiated	·······	66 GHz ÷ 220 GHz	10 dB	(1)	
Receiver		Sensitivity measurement	1 MHz ÷ 18 GHz	6.0 dB	(1)	
			0.009 MHz ÷ 18 GHz	3.0 dB	(1)	
	Conducted	Conducted spurious emissions	18 GHz ÷ 40 GHz	4.2 dB	(1)	
	Conductou		40 GHz ÷ 220 GHz	6.0 dB	(1)	

NOTES:

(1) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to a coverage probability of approximately 95 %



#### Section 5: Test conditions, continued

Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.
Vector Signal Generator	Keysight	N5182B MXG	MY59100262	2025-07
Vector Signal Generator	Keysight	N5182B MXG	MY61252595	2025-11
Spectrum Analyzer	Keysight	N9030B PXA	MY62282033	2024-12
Combiner	Miczen	MZP200506GA (0.5-6 GHz)	210314001	COU
Antenna Trilog 25MHz - 8GHz	Schwarzbeck	VULB9168	9168-242	2025-06
Antenna 1-18 GHz	Schwarzbeck	STLP 9148	STPL 9148-123	2025-06
Double Ridge Horn Antenna	RFSpin	DRH40	061106A40	2026-05
Broadband Amplifier	Schwarzbeck	BBV9718C	00121	2025-03
Broadband Bench Top Amplifier	Sage	STB-1834034030-KFKF-L1	18490-01	2025-05
EMI Receiver	Rohde & Schwarz	ESU8	100202	2025-09
Spectrum analyzer	R&S	FSW43	101767	2025-01
Controller	Maturo	FCU3.0	10041	NCR
Tilt antenna mast	Maturo	TAM4.0-E	10042	NCR
Turntable	Maturo	TT4.0-5T	2.527	NCR
3m Semi anechoic chamber	Comtest	SAC-3	1711-150	NCR

(\*) Equipment supplied by manufacturer's



# Appendix A: Test results

# Clause 935210 D05v01r04 (3.2) AGC threshold

Measure of EUT AGC Threshold

Test date: 2024-12-16 to 2024-12-19 Test results: Pass

#### Special notes

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Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.
Vector Signal Generator	Keysight	N5182B MXG	MY59100262	2025-07
Spectrum Analyzer	Keysight	N9030B PXA	MY62282033	2024-12

(\*) Equipment supplied by manufacturer's



#### Test data

	Input: RF Coupling: AC Ext Gain: 0.25 dE Align: Auto	Input Ζ: 50 Ω Corr CCorr RCal Freq Ref: Int (S) NFE: Off	Atten: 20 dB Preamp: Off µW Path: Sta #PNO: Fast	Trig: Free Run Gate: Off ndard #IF Gain: Low	Carrier Ref Fred Avg Hold:>200/ CC Info: DL, 1 (	
1 Graph	•					
Scale/Div 10.0	dB		Ref Value 40	.00 dBm		
Log 30.0						
20.0						
10.0	r	~_~~				
0.00					A	
-10.0	/				\	\
-20.0						
-30.0	~~~~					m
-40.0						
-50.0						
Center 751.500 Res BW 68.000		V	ideo BW 680	0.00 kHz*	Swee	• Span 7.5 MHz p 1.00 ms (1001 pts)
2 Metrics	•					
Total Channel	Power	33.01 dBm/5.000	MHz	Component Carrie	er Carrier Pov	ver
Total Power S	pectral Density	-33.98 dBr	n/Hz	CC0	33.01 dBm/5.0	000 MHz
Measure Trac	e Trace 1					





5 MHz signal, middle channel, nominal input signal +1 dB



# Clause 935210 D05v01r04 (3.3) Out of band rejection

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

Test date: 2024-12-16 to 2024-12-19 Test results: Pass

#### Special notes

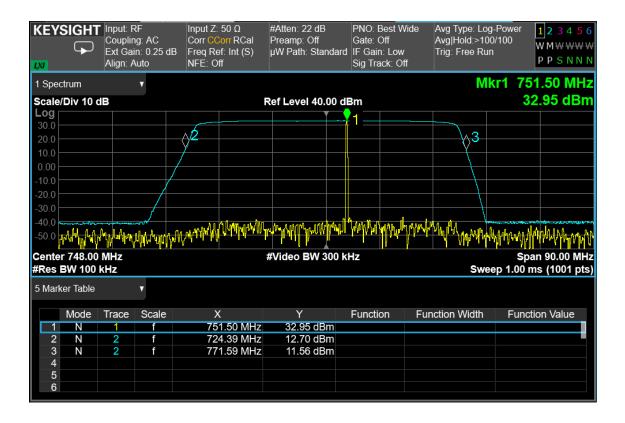
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Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.
Vector Signal Generator	Keysight	N5182B MXG	MY59100262	2025-07
Spectrum Analyzer	Keysight	N9030B PXA	MY62282033	2024-12

(\*) Equipment supplied by manufacturer's



#### Test data





### Clause 935210 D05v01r04 (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: 2024-12-16 to 2024-12-19 Test results: Pass

#### Special notes

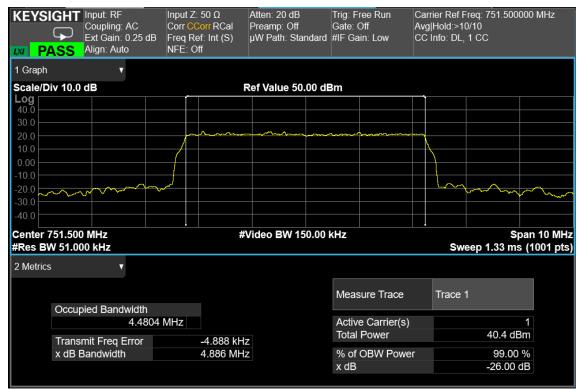
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Test equipment						
Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.		
Vector Signal Generator	Keysight	N5182B MXG	MY59100262	2025-07		
Spectrum Analyzer	Keysight	N9030B PXA	MY62282033	2024-12		

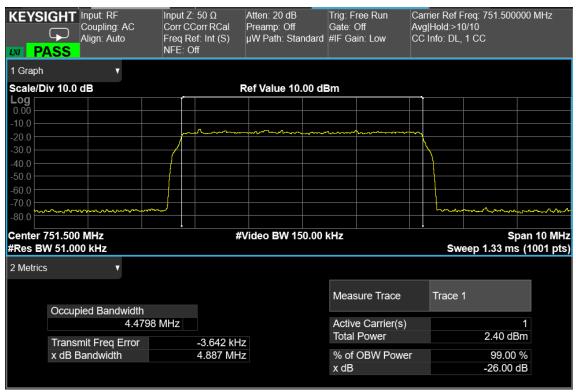
Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use (\*) Equipment supplied by manufacturer's



#### Test data



5 MHz signal, middle channel, nominal input signal - Output

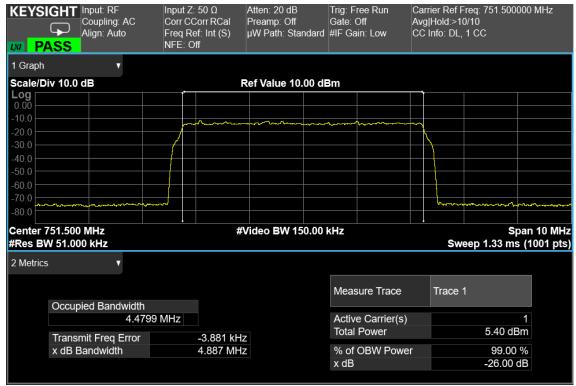


5 MHz signal, middle channel, nominal input signal - Input





#### 5 MHz signal, middle channel, nominal input signal + 3dB - Output



5 MHz signal, middle channel, nominal input signal + 3dB - Input



#### Clause 27.50(b) Peak output power at RF antenna connector

#### § 27.50(b) Operation within the bands: 746–758 MHz, 775–788 MHz and 805–806 MHz.

- 4) Fixed and base stations transmitting a signal in the 746–757 MHz and 776–787 MHz bands with an emission bandwidth greater than 1 MHz must not exceed an ERP of 1000 watts/MHz and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP accordance with Table 3 of this section.
- 12) For transmissions in the 746–757, 776–787 MHz bands, licensees may employ equipment operating in compliance with either the measurement techniques described in paragraph (b)(11) of this section or a Commission-approved average power technique. In both instances, equipment employed must be authorized in accordance with the provisions of §27.51

Test date: 2024-12-16 to 2024-12-19 Test results: Pass

#### Special notes

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Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.
Vector Signal Generator	Keysight	N5182B MXG	MY59100262	2025-07
Spectrum Analyzer	Keysight	N9030B PXA	MY62282033	2024-12



Test data

#### AWGN signal, nominal input signal

Test data									
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	RF output Power (W/MHz)	PAR (dB)			
Down-link	5G NR, 5 MHz	751.5	33.0	2.0	0.4	10.5			

#### AWGN signal, nominal input signal + 3dB

Test data						
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	RF output Power (W/MHz)	PAR (dB)
Down-link	5G NR, 5 MHz	751.5	33.1	2.0	0.4	10.4

Note: PAR measure is performed by the "CCDF" function installed on Spectrum analyzer that provides average power (the same measured with "Channel power" function), peak power and PAR.





5 MHz signal, middle channel, nominal input signal





5 MHz signal, middle channel, nominal input signal + 3dB



#### Clause 27.53(c) Spurious emissions at RF antenna connector

- (c) For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:
  - (1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
  - (3) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;
  - (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
  - (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

#### Test date: 2024-12-16 to 2024-12-19 Test results: Pass

#### Special notes

For Class 2 Permissive Change new tests were performed only on band edges intermodulation. For previous spurious emissions tests at RF antenna connector see **372719-3TRFWL.pdf** report.

Test equipment				
Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.
Vector Signal Generator	Keysight	N5182B MXG	MY59100262	2025-07
Vector Signal Generator	Keysight	N5182B MXG	MY61252595	2025-11
Spectrum Analyzer	Keysight	N9030B PXA	MY62282033	2024-12
Combiner	Miczen	MZP200506GA (0.5-6 GHz)	210314001	COU

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

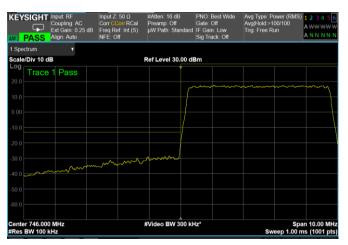


#### Test data

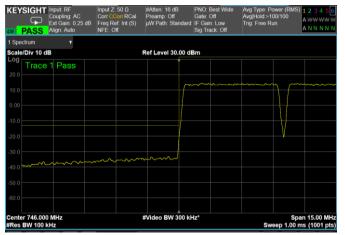
See Plots below			
Spurious emissions measurement result	S:		
Frequency (MHz)	Spurious emission (dBm)	Limit (dBm)	Margin (dB)
First channel	Negligible	-13	
Mid channel	Negligible	-13	
Last channel	Negligible	-13	



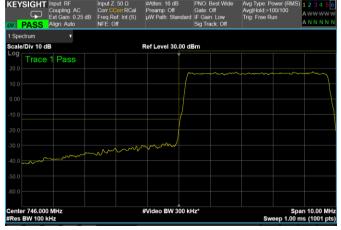
#### Test data, continued: band edges Inter modulation



# 5 MHz signal, Low Band Edge, 1 carrier, nominal input signal



5 MHz signals, Low Band Edge, 2 carriers, nominal input signal

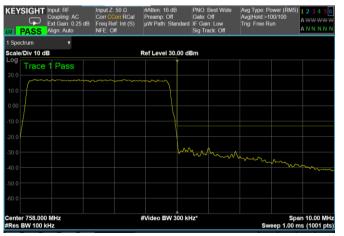


#### 5 MHz signal, Low Band Edge, 1 carrier, nominal input signal + 3dB

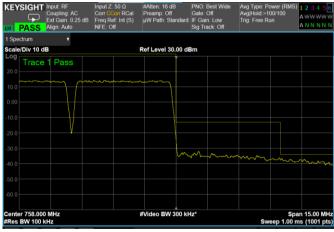


5 MHz signals, Low Band Edge, 2 carriers, nominal input signal + 3dB

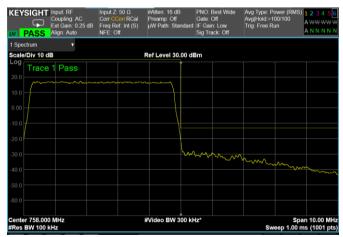




#### 5 MHz signal, High Band Edge, 1 carrier, nominal input signal



5 MHz signals, High Band Edge, 2 carriers, nominal input signal



#### 5 MHz signal, High Band Edge, 1 carrier, nominal input signal + 3dB



5 MHz signals, High Band Edge, 2 carriers, nominal input signal + 3dB



#### Clause 27.53(c) Radiated Spurious emissions

- (c) For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:
  - (1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
  - (3) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;
  - (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
- (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

# Test date: N/A

#### Test results: N/A

#### Special notes

- Test not performed because not requested for a Class 2 Permissive Change.
- For previous radiated spurious emission tests see 372719-3TRFWL.pdf report.

Test equipment							
Equipment	Manufacturer	Model No.	Asset/Serial No.	Next cal.			
Note: N/A = Not Applicable, NCR = No Cal Required, COU = CAL On Use (*) Equipment supplied by manufacturer's							



#### Clause 27.53(c) Radiated spurious emissions, continued

Test data				
Spurious emissions measurement results:				
Frequency	Polarization.	Field strength	Limit	Margin
(MHz)	V/H	(dBm)	(dBm)	(dB)
Low channel				
-				
-				
-				
Mid channel				
High channel				
-				
-				
-				
Note:				
L				



#### Clause 27.53(f) Radiated spurious emissions within 1559–1610 MHz band

(f) For operations in the 746–763 MHz, 775–793 MHz, and 805–806 MHz bands, emissions in the band 1559–165 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

# Test date: N/A

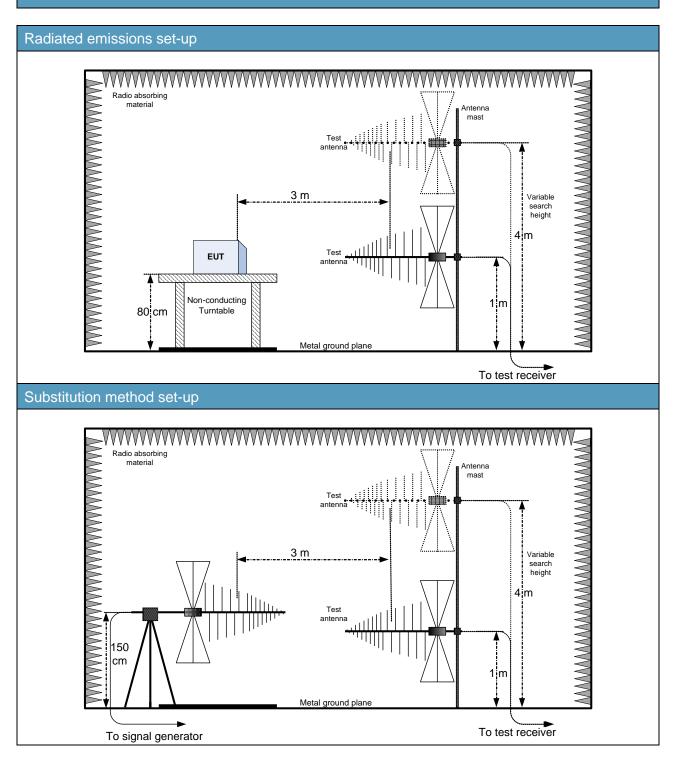
Test results: N/A

#### Special notes

- Test not performed because not requested for a Class 2 Permissive Change.
- For previous radiated spurious emission tests see 372719-3TRFWL.pdf report.



# Appendix B: Block diagrams of test set-ups





# Appendix C: EUT Photos

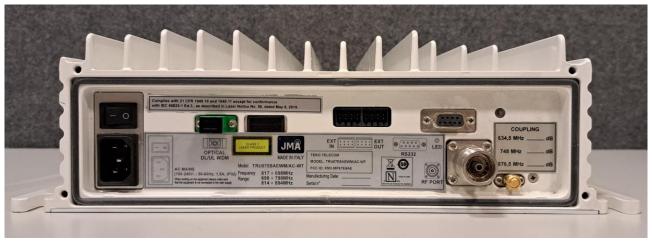
Photo Set up





#### Photo EUT











- END OF REPORT -