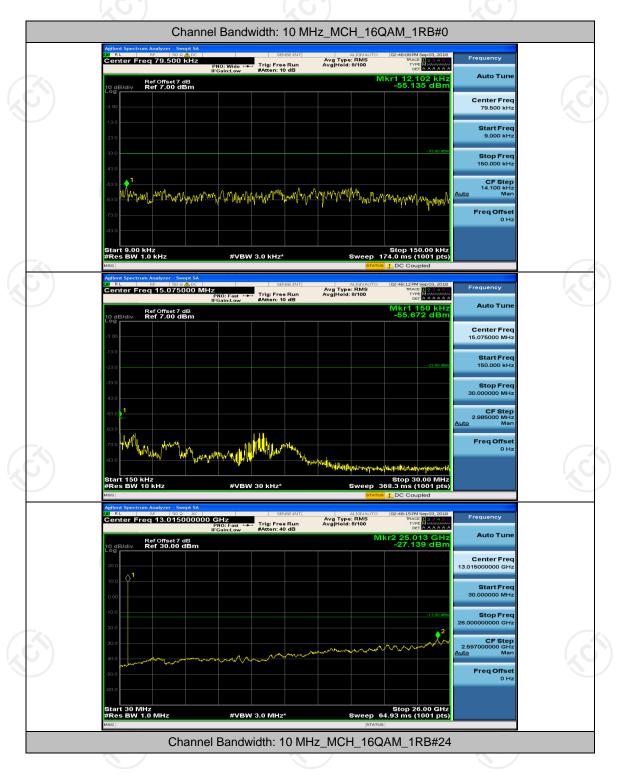
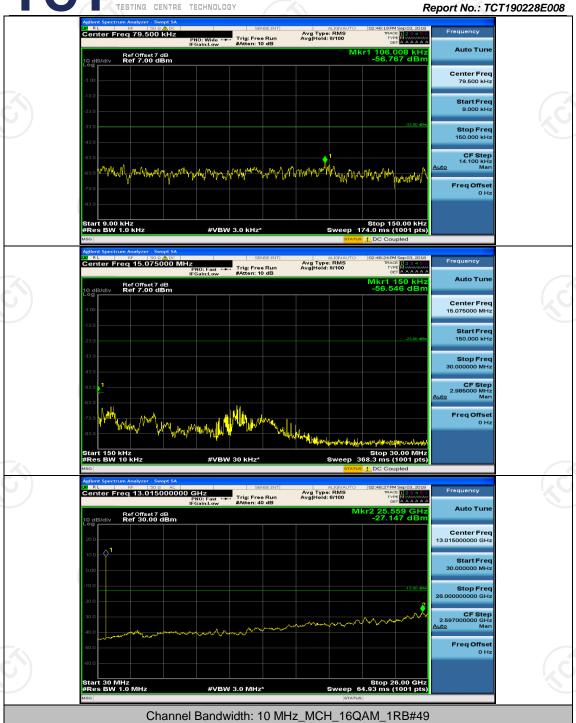




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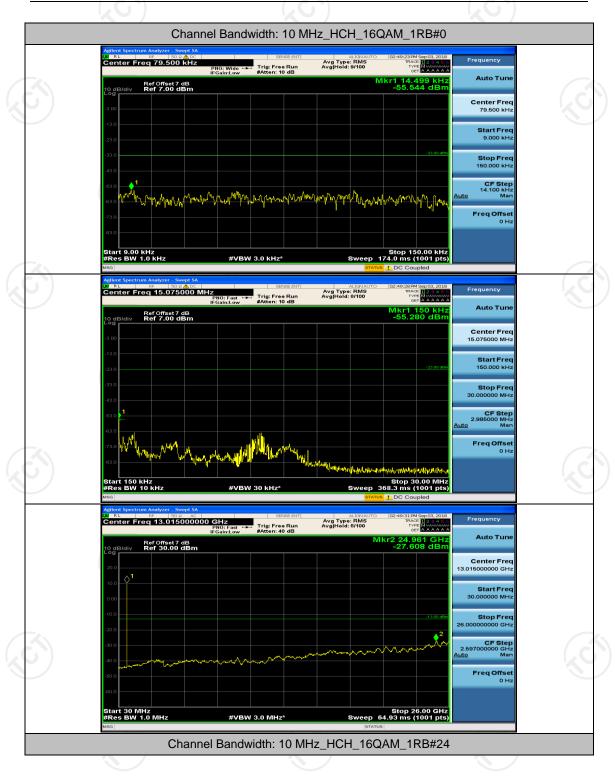








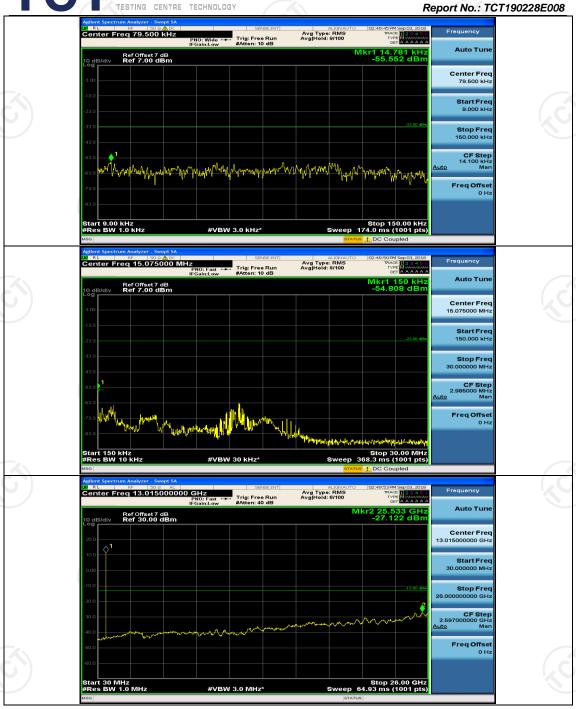














## **Appendix F: Frequency Stability**

**Test Result** 

**Channel Bandwidth: 5 MHz** 

			Channel Ban	dwidth: 5 MHz		
			Vol	tage		
Modulation	Channel	Voltage [Vdc]	Temperature $(^{\circ}\!$	Deviation (ppm)	Limit (ppm)	Verdict
		10.5	25	-0.000020	± 2.5	PASS
	LCH	24	25	0.000404	± 2.5	PASS
		32	25	0.000710	± 2.5	PASS
QPSK		10.5	25	0.001007	± 2.5	PASS
	MCH	24	25	0.001551	± 2.5	PASS
		32	25	0.000773	± 2.5	PASS
		10.5	25	0.000501	± 2.5	PASS
	HCH	24	25	0.000523	± 2.5	PASS
		32	25	0.000259	± 2.5	PASS
		10.5	25	-0.001316	± 2.5	PASS
	LCH	24	25	0.000161	± 2.5	PASS
16QAM		32	25	0.001183	± 2.5	PASS
		10.5	25	0.000584	± 2.5	PASS
	MCH	24	25	-0.000302	± 2.5	PASS
		32	25	0.001033	± 2.5	PASS
		10.5	25	0.001283	± 2.5	PASS
	HCH	24	25	-0.000020	± 2.5	PASS
	(0)	32	25	-0.000267	± 2.5	PASS
			Tempe	erature		
Modulation	Channe I	Voltage [Vdc]	Temperature $(^{\circ}\mathbb{C})$	Deviation (ppm)	Limit (ppm)	Verdict
-11		24	-30	-0.000911	± 2.5	PASS
QPSK		24	-20	-0.000628	± 2.5	PASS
		24	-10	-0.001620	± 2.5	PASS
		24	0	-0.000628	± 2.5	PASS
	LCH	24	10	0.001412	± 2.5	PASS
		24	20	0.000948	± 2.5	PASS
		24	30	0.000747	± 2.5	PASS
		24	40	0.000040	± 2.5	PASS
		24	50	0.000668	± 2.5	PASS
		24	-30	0.000383	± 2.5	PASS
		24	-20	0.000181	± 2.5	PASS
		24	-10	0.001733	± 2.5	PASS
	MCH	24	0	0.000604	± 2.5	PASS
		24	10	0.000484	± 2.5	PASS
		24	20	0.002116	± 2.5	PASS
		24	30	0.000322	± 2.5	PASS

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	TESTING					ort No.: TCT1	
	(O)	24	40	Z V	0.000242	± 2.5	PASS
		24	50		0.001431	± 2.5	PASS
		24	-30		0.001183	± 2.5	PASS
		24	-20		0.001043	± 2.5	PASS
		24	-10		0.000401	± 2.5	PASS
5)		24	0		0.001243	± 2.5	PASS
	нсн	24	10		0.000402	± 2.5	PASS
		24	20		-0.000966	± 2.5	PASS
		24	30		-0.000483	± 2.5	PASS
		24	40		-0.000302	± 2.5	PASS
	(C)	24	50	20	-0.000080	± 2.5	PASS
		24	-30		0.000000	± 2.5	PASS
		24	-20		-0.000992	± 2.5	PASS
		24	-10		-0.001154	± 2.5	PASS
		24	0		-0.000628	± 2.5	PASS
	LCH	24	10		0.000484	± 2.5	PASS
		24	20		0.000625	± 2.5	PASS
		24	30		0.001634	± 2.5	PASS
		24	40		-0.000040	± 2.5	PASS
		24	50		-0.000486	± 2.5	PASS
		24	-30		0.000665	± 2.5	PASS
		24	-20		0.000866	± 2.5	PASS
		24	-10		0.002136	± 2.5	PASS
		24	0		0.002196	± 2.5	PASS
16QAM	MCH	24	10		0.000846	± 2.5	PASS
5)		24	20		-0.000060	± 2.5	PASS
		24	30		0.000000	± 2.5	PASS
		24	40		0.000121	± 2.5	PASS
		24	50		0.000515	± 2.5	PASS
		24	-30		0.001183	± 2.5	PASS
	(, (, ))	24	-20		-0.000100	± 2.5	PASS
		24	-10		0.000321	± 2.5	PASS
		24	0		0.001103	± 2.5	PASS
	HCH	24	10		-0.000463	± 2.5	PASS
		24	20		-0.000966	± 2.5	PASS
		24	30		-0.000845	± 2.5	PASS
		24	40		0.000101	± 2.5	PASS
		24	50		0.000240	± 2.5	PASS
			-				-

Note: All bandwidth and modulation are tested, only the worst result is reported.

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## **Appendix G :Field Strength of Spurious Radiation Measurement Test Result**

Bandwidth:	esult :h: 5M		Test channel:	Lowest	
Modulation:	QPSK		Temperature :	23~24°C	
RB #:	1RB #	#0	Relative Humidity:	46~48%	
Note:	Spurious emissions w	rithin 30-1000MHz	were found more than	20dB below limit	
Frequency (MHz)	Spurious E	mission	Limit (dPm)	Result	
Frequency (IVITZ)	Polarization Level (dBm)		Limit (dBm)	Result	
1413.0	Vertical	-32.17		PASS	
2119.5	V	-44.35			
(6)-	V	-	(12.00		
1413.0	Horizontal	-31.40	-13.00		
2119.5	Н	-43.87			
-	Н	-			
Bandwidth:	5M		Test channel:	Middle	
Modulation:	QPSI	K	Temperature :	23~24°C	
RB #:	1RB #	ŧ0	Relative Humidity:	46~48%	
Note:	line.		were found more than	200B below lifflit	
Frequency (MHz)	Spurious E	mission Level (dBm)	Limit (dBm)	Result	
1420.0	Vertical	-30.50			
2130.0	V	-43.26			
- (	V				
4.420.0		/ <u>-</u>			
1420.0	Horizontal	-31.54	-13.00	PASS	
	Horizontal H		-13.00	PASS	
2130.0		-31.54	-13.00	PASS	
	Н	-31.54 -42.37	-13.00 Test channel:		
2130.0 - Bandwidth:	H H 5M	-31.54 -42.37 -	Test channel:	Highest	
2130.0 - Bandwidth: Modulation:	H H 5M QPSI	-31.54 -42.37 -	Test channel: Temperature :	Highest 23~24°C	
2130.0 - Bandwidth:	H H 5M QPSI	-31.54 -42.37 - K	Test channel:	Highest 23~24°C 46~48%	
2130.0 - Bandwidth: Modulation: RB #: Note:	H H 5M QPSI 1RB # Spurious emissions w	-31.54 -42.37 - K #0 vithin 30-1000MHz	Test channel: Temperature: Relative Humidity: were found more than	Highest 23~24°C 46~48% 20dB below limit	
2130.0 - Bandwidth: Modulation: RB #:	H H 5M QPSI 1RB # Spurious emissions w line.	-31.54 -42.37 - K #0 vithin 30-1000MHz	Test channel: Temperature: Relative Humidity:	Highest 23~24°C 46~48%	
2130.0 - Bandwidth: Modulation: RB #: Note:	H  H  5M  QPSI  1RB #  Spurious emissions w line.  Spurious E	-31.54 -42.37 - K #0 vithin 30-1000MHz	Test channel: Temperature: Relative Humidity: were found more than	Highest 23~24°C 46~48% 20dB below limit	
2130.0  Bandwidth: Modulation: RB #: Note: Frequency (MHz)	H  H  5M  QPSI  1RB #  Spurious emissions w line.  Spurious El  Polarization	-31.54 -42.37 - K #0 vithin 30-1000MHz mission Level (dBm)	Test channel: Temperature: Relative Humidity: were found more than	Highest 23~24°C 46~48% 20dB below limit	
2130.0	H  H  SM  QPS  1RB #  Spurious emissions w line.  Spurious En  Polarization  Vertical	-31.54 -42.37 - K 60 vithin 30-1000MHz mission Level (dBm) -31.18	Test channel: Temperature: Relative Humidity: were found more than Limit (dBm)	Highest 23~24°C 46~48% 20dB below limit  Result	
2130.0	H H SM QPSI 1RB # Spurious emissions w line. Spurious En Polarization Vertical V	-31.54 -42.37 - K 60 vithin 30-1000MHz mission Level (dBm) -31.18	Test channel: Temperature: Relative Humidity: were found more than	Highest 23~24°C 46~48% 20dB below limit	
2130.0  - Bandwidth: Modulation: RB #: Note:  Frequency (MHz) 1427.0 2140.5	H H SM QPSI 1RB # Spurious emissions w line. Spurious En Polarization Vertical V V	-31.54 -42.37 - K FO within 30-1000MHz mission Level (dBm) -31.18 -42.95 -	Test channel: Temperature: Relative Humidity: were found more than Limit (dBm)	Highest 23~24°C 46~48% 20dB below limit  Result	

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	TESTING CENTRE TECHNOLOGY			TCT190228E008	
Bandwidth:	5M		Test channel:	Lowest	
Modulation:	16QAM		Temperature :	23~24°C	
RB #:	1RB #	10	Relative Humidity:	46~48%	
Note:	Spurious emissions w line.	ithin 30-1000MH	z were found more than	20dB below limit	
Fraguency (MHz)	Spurious Er	mission	Limit (dBm)	Result	
Frequency (MHz)	Polarization Level (dBm)		Lilliit (UBIII)	Result	
1413.0					
2119.5					
- (	V	<u> </u>	13.00	DASS	
1413.0	Horizontal	-32.35	-13.00	PASS	
2119.5	Н	-46.10			
	н -				
Bandwidth:	5M		Test channel:	Middle	
Modulation:	16QA	М	Temperature :	23~24°C	
RB #:	1RB #	10	Relative Humidity:	46~48%	
Note:	line.		z were found more than	200B BCIOW IIIIII	
Frequency (MHz)	Spurious Er	mission	Limit (dBm)	Result	
Trequency (IVIII2)	Polarization	Level (dBm)	Ellille (dbill)		
1420.0	Vertical	-30.55		PASS	
2130.0	V	-42.72			
<u> </u>	V	-	-13.00		
1420.0	Horizontal	-31.45			
2130.0	Н	-43.61			
- (	Н	-			
Bandwidth:	5M		Test channel:	Highest	
<b>Modulation:</b>	16QA	М	Temperature :	23~24°C	
RB #:	1RB #0		Relative Humidity:	46~48%	
Note:	Spurious emissions w	ithin 30-1000MH	z were found more than	20dB below limit	
F	Spurious Er	mission	Limit ( ID )	D !!	
Frequency (MHz)	Polarization	Level (dBm)	Limit (dBm)	Result	
1427.0	Vertical	-31.29			
2140.5	V	-46.60			
-	- V -			)	
1427.0			-13.00	PASS	
2140.5	Н	-42.78	7		
	н -				

Note: All bandwidth and modulation are tested, only the worst result is reported.