Declaración de Información Comercial y Técnica - Chile

Información Comercial	
Fecha	2026/07/22
Nombre comercial del equipo	MAG X870E GAMING MAX WIFI
Fabricante	Micro-Star INT'L CO., LTD.
Importador o representante en Chile	Samual Rojas
Domicilio (en Chile) del fabricante	Nevado de Chillan 19413, Santiago
Correo electrónico de contacto	Samuelrojas@msi.com
Sitio web	https://latam.msi.com/

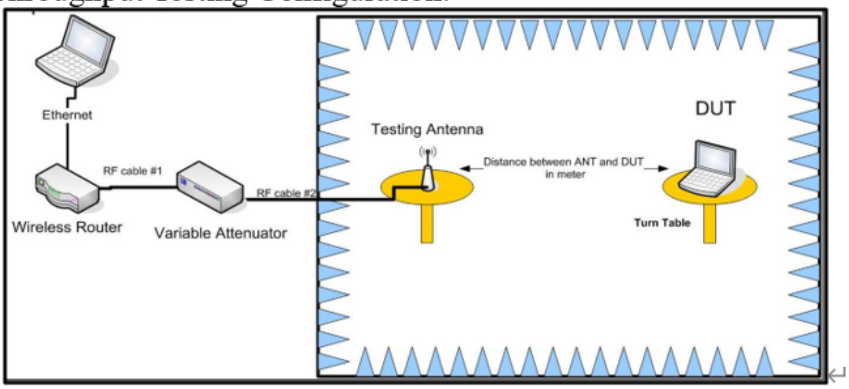
Características técnicas	
Tipo de equipo	Placa Madre
Marca	MSI
Modelo	MAG X870E GAMING MAX WIFI
Tecnología / Modulación	Bluetooth/Wi-Fi
Bandas de frecuencias	BT/BLE: 2402-2483.5MHz; WLAN 2.4G: 2402-2483.5MHz; WLAN 5G: 5.2G 5150-5350MHz 5.6G 5470-5725MHz 5.8G 5725-5895MHz WLAN 6G: 5925-7125MHz
Ganancia de antena (dBi)	BT/WLAN 2.4G: < 2.42 dBi WLAN 5G: < 3.87 dBi WLAN 6G: 6.2GHz 5925-6425MHz < 3.93 dBi 6.5GHz 6425-6525MHz < 3.61 dBi 6.7GHz 6525-6875MHz < 3.61 dBi 7.0 GHz 6875-7125MHz < 3.14 dBi
Max EIRP	BT/WLAN 2.4G: < 36 dBm WLAN 5G: 5150-5350MHz < 30dBm 5470-5725MHz < 30dBm 5725-5895MHz < 36dBm WLAN 6G: 5945-6425MHz <24dBm

Módulos RF usados	Chip: MT7925B22M Wi-Fi 7 - 802.11 a/b/g/n/ac/ax /be Bluetooth 5.4

Declaración de conformidad	El equipo previamente individualizado cumple con las disposiciones establecidas en la Norma Técnica de Equipos de alcance reducido, aprobada por la resolución exenta N° 1.985, de 2017, de la Subsecretaría de Telecomunicaciones

1. WLAN Throughput Test

1-1 WLAN Throughput Testing Configuration:



Total Attenuation=Air Loss (path loss) + Loss of 2 cables + Attenuator - Testing antenna gain = 75dB

1-2 WLAN Waterfall Throughput Test (Worst channel)

☒(1) 802. 11n 40MHz (2.4 – 2.5GHz)

Throughput (Mbps)

2.4 GHz chamber total path loss valu	63.0 dB
AP Transmit power	30.0 dBm
Access point	Wi-Fi 7 AP RT-BE96U
Access point software version	
Turntable continuous rotation spee	1 RPM

經過Butler

	Receive Level (dB) = AP TX - TPL - Att		1	2	3	4	5	6	Channel				Select 1-5 Spec.
Attenuator setting (dB)	Total loss (Chamber + Attenuator)	2.4GHz Receive Level (dBm)	1 SS N RX (20MHz BW)	2 SS N RX (20MHz BW)	2SS N RX (40MHz BW)	1 SS AX RX (40MHz BW)	2 SS AX RX (40MHz BW)	2 SS BE RX (40MHz BW)	1	6	11	RX Result (Mbps)	5 Spec.
21	84	-54	40	80	180	170	345	415	390.9	438.0	414.8	414.6	345
33	96	-66	20	50	110	100	210	250	230.5	255.9	221.5	235.9	210
39	102	-72	15	30	60	55	115	140	140.8	167.0	123.4	143.7	115
42	105	-75	3	15	35	35	70	80	90	116	90	99.0	70

	Receive Level (dB) = AP TX - TPL - Att		1	2	3	4	5	6	Channel				Select 1-5 Spec.
Attenuator setting (dB)	Total loss (Chamber + Attenuator)	2.4GHz Receive Level (dBm)	1 SS N RX (20MHz BW)	2 SS N RX (20MHz BW)	2SS N RX (40MHz BW)	1 SS AX RX (40MHz BW)	2 SS AX RX (40MHz BW)	2 SS BE RX (40MHz BW)	1	6	11	TX Result (Mbps)	5 Spec.
21	84	-54	40	80	180	170	345	415	366.6	358.6	357.8	361.0	345
33	96	-66	20	50	110	100	210	250	215.6	212.6	210.4	212.9	210
39	102	-72	15	30	60	55	115	140	125.1	143.2	126.8	131.7	115
42	105	-75	3	15	35	35	70	80	101	113	97	103.6	70

Run Burnin 3D 90%	RX Spec
Total Loss (dB) : 96 dB	50

1	6	11	RX Result (Mbps)
108.6	113.5	95.5	105.9

☒(1) 802. 11AC 80MHz (5.15 – 5.85GHz)

Throughput (Mbps)

5 GHz chamber total path loss value	76.0 dB
AP Transmit power	24.0 dBm
Access point	Wi-Fi 7 AP RT-BE96U
Access point software version	
Turntable continuous rotation speed	1 RPM

經過Butler

	Receive Level (dB) = AP TX - TPL - Att		1	2	3	4	5	Channel				Select 1-5 Spec.
Attenuator setting (dB)	Total loss (Chamber + Attenuator)	2.4GHz Receive Level (dBm)	1 SS AC RX (80MHz BW) 1	2 SS AC RX (80MHz BW) 2	1SS AX RX (80MHz BW) 3	2 SS AX RX (80MHz BW) 4 1 SS AX RX (160MHz BW) 4	2 SS BE RX (160MHz BW) 5	36	100	149 (160MHz no support)	RX Result (Mbps)	5 Spec.
4	80	-56	200	400	550	1105	1325	1736.6	1667.5		1702.1	1325
16	92	-68	150	300	415	830	995	1089.6	1068.8		1079.2	995
22	98	-74	120	250	345	690	830	850.6	811.6		831.1	830
25	101	-77	80	180	290	480	575	590	596		592.9	575

	Receive Level (dB) = AP TX - TPL - Att		1	2	3	4	5	Channel				Select 1-5 Spec.
Attenuator setting (dB)	Total loss (Chamber + Attenuator)	2.4GHz Receive Level (dBm)	1 SS AC RX (80MHz BW) 1	2 SS AC RX (80MHz BW) 2	1SS AX RX (80MHz BW) 3	2 SS AX RX (80MHz BW) 4 1 SS AX RX (160MHz BW) 4	2 SS BE RX (160MHz BW) 5	36	100	149 (160MHz no support)	TX Result (Mbps)	5 Spec.
2	78	-54	150	300	415	830	1000	1269.6	1333.6		1301.6	1000
14	90	-66	110	220	305	610	730	759.6	788.5		774.1	730
20	96	-72	60	130	180	360	435	462.5	498.7		480.6	435
23	99	-75	40	90	125	250	300	312	334		322.6	300

Run Burnin 3D 90%	RX Spec
Total Loss (dB) : 92 dB	50

1	6	11	RX Result (Mbps)
526.6	510.5		518.6

☒(1) 802.11 BE 160MHz (5.925 – 7.125GHz)

Throughput (Mbps)

5 GHz chamber total path loss value	83.0 dB
AP Transmit power	24.0 dBm
Access point	Wi-Fi 7 AP RT-BE96U
Access point software version	
Turntable continuous rotation spee	1 RPM

經過Butler

	Receive Level (dB) = AP TX - TPL - Att		1	2	3	4	Channel			Select 1-5 Spec.
Attenuator setting (dB)	Total loss (Chamber + Attenuator)	2.4GHz Receive Level (dBm)	2 SS AX RX (80MHz BW) 1 1 SS AX RX (160MHz BW) 1	2 SS AX RX (160MHz BW) 2	2SS BE RX (160MHz BW) 3	2 SS BE RX (320MHz BW) 4	37 37-2(320MHz)	117 117-2(320MHz)	RX Result (Mbps)	4 Spec.
Directly	62	-38	610	1,250	1,495	2990	3548.3	3597.3	3572.8	2990
1	84	-60	450	900	1,075	2150	2422.8	2623.7	2523.3	2150
7	90	-66	160	350	415	835	1856.9	1987.0	1921.9	835
16	99	-75	100	200	230	460	855	863	859.4	460
22	105	-81	50	100	120	240	456.27	394.86	425.6	240

	Receive Level (dB) = AP TX - TPL - Att		1	2	3	4	Channel			Select 1-5 Spec.
Attenuator setting (dB)	Total loss (Chamber + Attenuator)	2.4GHz Receive Level (dBm)	2 SS AX RX (80MHz BW) 1 1 SS AX RX (160MHz BW) 1	2 SS AX TX (160MHz BW) 2	2SS BE TX (80MHz BW) 3	2 SS BE TX (320MHz BW) 4	37 37-2(320MHz)	117 117-2(320MHz)	TX Result (Mbps)	4 Spec.
Directly	62	-37	400	800	1,495	2990	3162.6	3201.4	3182.0	2990
1	84	-60	170	350	1,075	2150	2306.6	2416.6	2361.6	2150
7	90	-66	70	160	415	835	1047.1	1025.6	1036.3	835
16	99	-75	40	80	230	460	490	468.6	479.2	460
22	105	-81	20	50	120	240	233.6	256.9	245.3	240

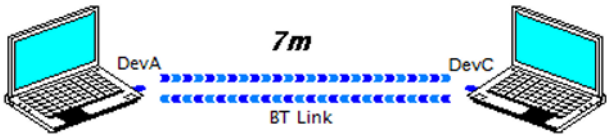
Run Burnin 3D 90%	RX Spec
Total Loss (dB) : 90 dB	50

37	117	RX Result (Mbps)
1055.8	1065.9	1060.9

2. Bluetooth Throughput Test

2-1 Bluetooth Throughput Testing Configuration:

A. Test tool: IxChariot v5.40 or later
B. BT use PAN profile link
C. Distance between 2 DUT : 7m
D. Pass criteria > 0.3 Mbps
E. Open space test



PS: No barriers between the two DUT

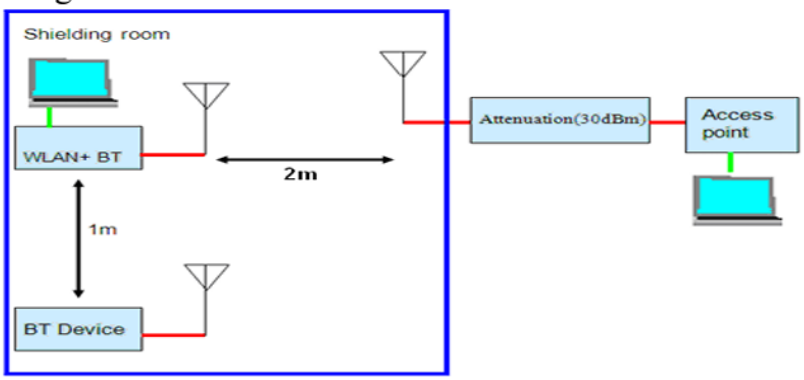
2-2 Bluetooth Throughput Test Result

BT Profile	Degree	UL Throughput (Mbps)	DL Throughput (Mbps)	Criteria
PAN				>0.3Mbps
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				
PAN				

3. WLAN & BT Coexistence Test

3-1 WLAN & BT Coexistence Testing Configuration:

1. Antenna isolation > 15 dB (recommended > 20 dB)
2. Combo module (BT+WLAN) antenna isolation > 20 dB
3. In the shielding room test



3-2 WLAN & BT Coexistence Test Result: (Wi-Fi Lab 1)

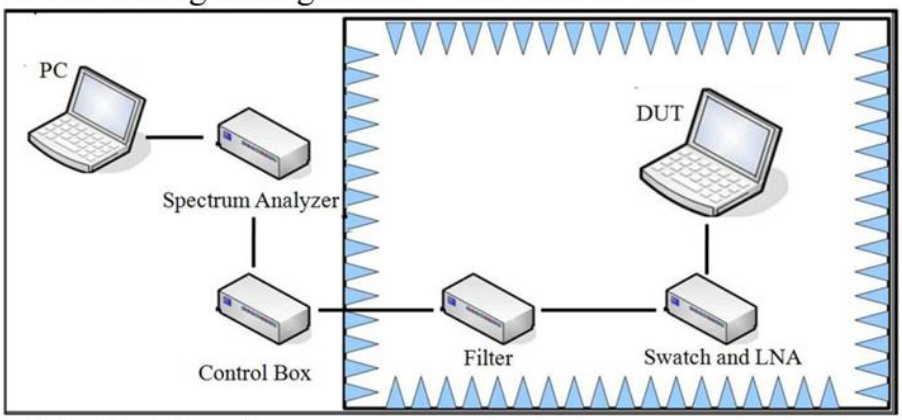
☐11n 20M		☐11n 40M		Spec.			
Att. (dB)	**Receive Level**	CH1		20M		40M	
		WLAN Throughput (Mbps)		1 X 1	2 X 2	1 X 1	2 X 2
66	-38	TX	133.4	23	40	40	60
		RX	102.1				
76	-48	TX	93.6.1	18	25	31	45
		RX	74.5.2				
86	-58	TX	76.6	12	18	12	25
		RX	57.6				
96	-68	TX	X	0	0	0	0
		RX	X				
101	-73	TX	X	0	0	0	0
		RX	X				

Att. (dB)	**Receive Level**	CH6		Spec.			
		WLAN Throughput (Mbps)		1 X 1	2 X 2	1 X 1	2 X 2
66	-38	TX	130.6	30	44	42	58
		RX	101.6				
76	-48	TX	109.1	17	26	30	41
		RX	81.5				
86	-58	TX	78.6	10	15	13	26
		RX	60.4				
96	-68	TX	X	0	0	0	0
		RX	X				
101	-73	TX	X	0	0	0	0
		RX	X				

Att. (dB)	**Receive Level**	CH11		Spec.			
		WLAN Throughput (Mbps)		1 X 1	2 X 2	1 X 1	2 X 2
66	-38	TX	136.4	30	44	36	56
		RX	124.6				
76	-48	TX	91.7	17	22	26	43
		RX	80.5				
86	-58	TX	60.6	13	16	12	28
		RX	51.5				
96	-68	TX	X	0	0	0	0
		RX	X				
101	-73	TX	X	0	0	0	0
		RX	X				

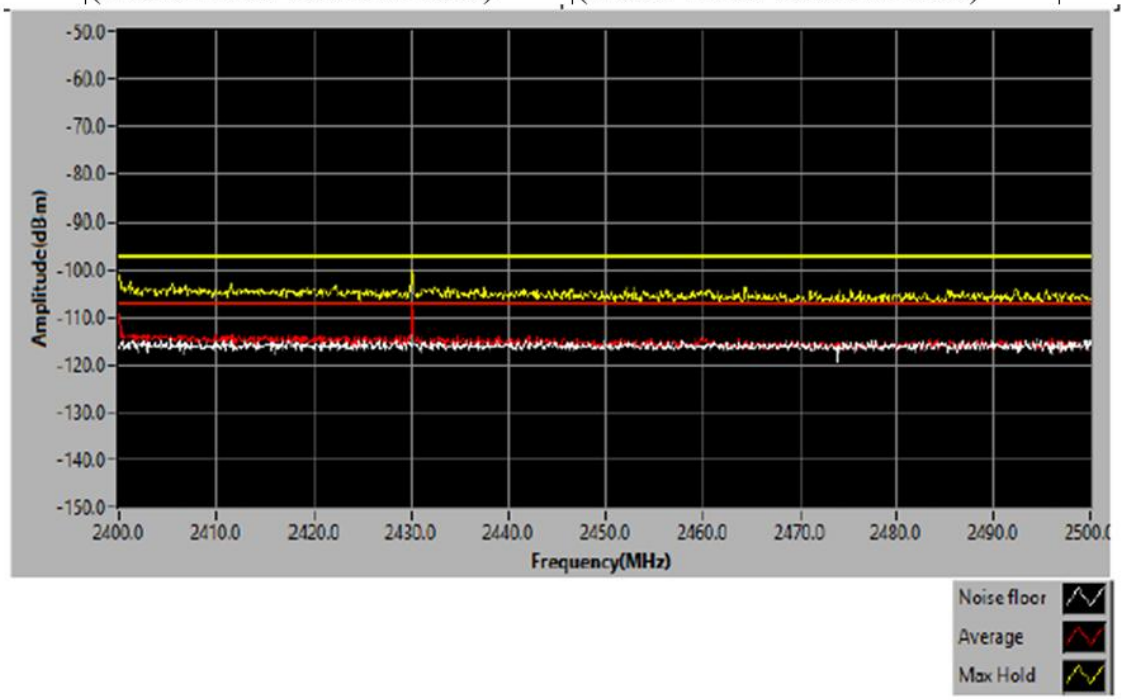
4. Platform Noise Test

4-1 Platform Noise Testing Configuration: With Burn-in Test

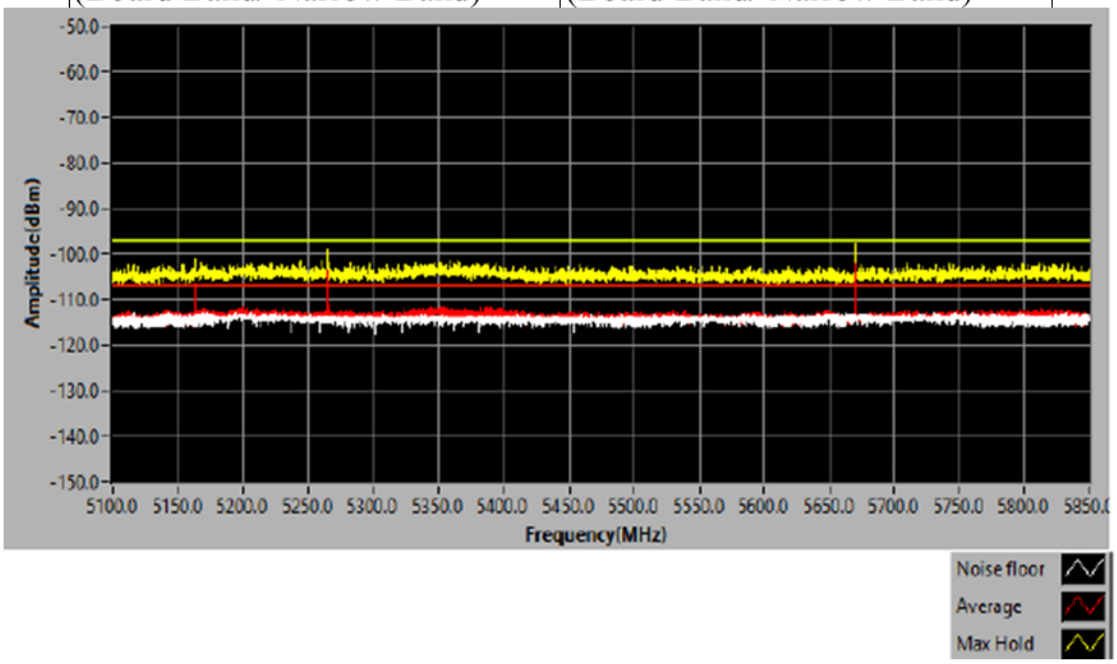


4-2 Platform Noise Test Result:

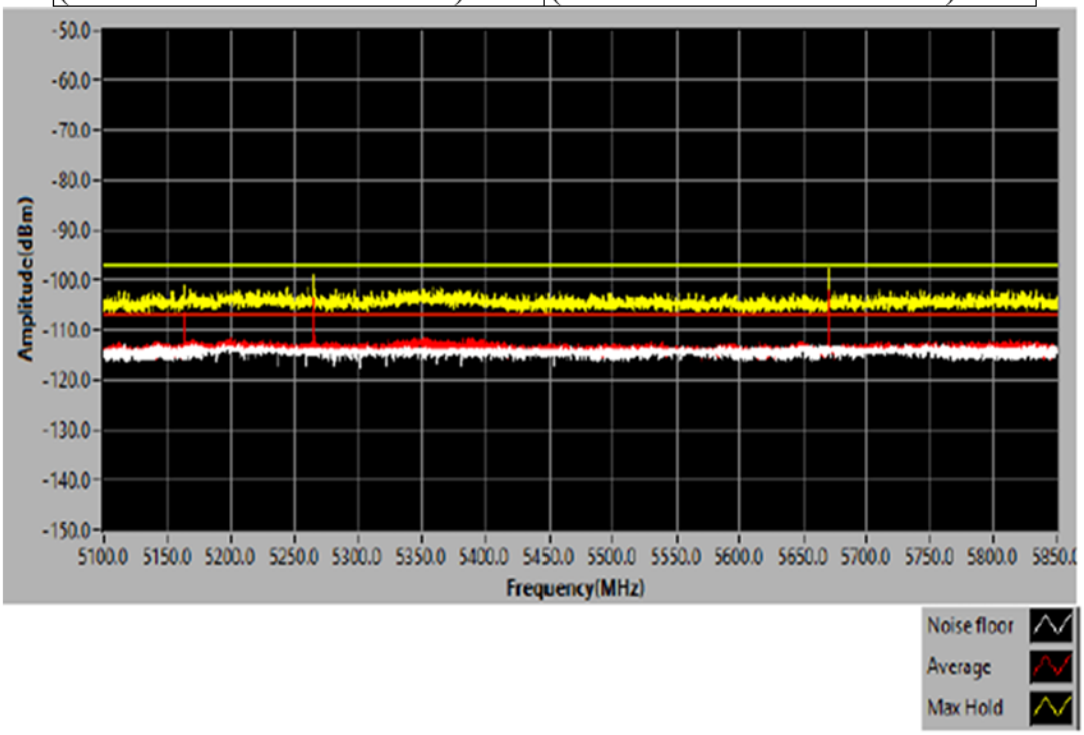
WLAN(2.4G): Start(2.4GHz) ~ Stop(2.5GHz) for Main Antenna	
☐MAX : -97dB / -87dB (Board Band/ Narrow Band)	☒Average : -107dB / -97dB (Board Band/ Narrow Band)



WLAN(5G): Start(5.1GHz) ~ Stop(5.8GHz) for Main Antenna	
☐MAX : -97dB / -87dB (Board Band/ Narrow Band)	☒Average : -107dB / -97dB (Board Band/ Narrow Band)



WLAN(6E): Start(5.925GHz) ~ Stop(7.125GHz) for Main Antenna	
☐MAX : -97dB / -87dB (Board Band/ Narrow Band)	☒Average : -107dB / -97dB (Board Band/ Narrow Band)



WLAN(6E) : Start(5.925GHz) ~ Stop(7.125GHz) for Aux	
☐MAX : -97dB / -87dB (Board / Narrow)	☒Average : -107dB / -97dB (Board / Narrow)

