# Tune up procedure

FCC ID: 2AJO5SD60

Tune up procedure shall be over the power range or at specific operating power levels.

Target Power range:

GSM Speech <SIM1>

GSM 850 (GMSK) (Burst Average Power)							
Channel Channel 251 Channel 190 Channel 128							
Target (dBm)	30.5	30.5	30.5				
Tolerance ±(dB)	1.0	1.0	1.0				
	GSM 1900 (GMSK) (Burst Average Power)						
Channel	Channel 810	Channel 661	Channel 512				
Target (dBm)	25.5	25.5	25.5				
Tolerance ±(dB)	1.0	1.0	1.0				

	GSM 850 GPRS	(GMSK) (Burst Av	verage Power)	
C	hannel	128	190	251
1 Txslot	Target (dBm)	30.5	30.5	30.5
1 1 XSIOL	Tolerance ±(dB)	1.0	1.0	1.0
2 Txslot	Target (dBm)	28.0	28.0	28.0
2 TXSIOU	Tolerance ±(dB)	1.0	1.0	1.0
3 Txslot	Target (dBm)	26.0	26.0	26.0
3 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
4 Tuelet	Target (dBm)	24.0	24.0	24.0
4 Txslot	Tolerance ±(dB)	1.0	1.0	1.0
	GSM 850 EGPR	S (8PSK) (Burst A	verage Power)	
C	hannel	128	190	251
1 Txslot	Target (dBm)	28.0	28.0	28.0
1 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
2 Txslot	Target (dBm)	25.5	25.5	25.5
2 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
3 Txslot	Target (dBm)	23.0	23.0	23.0
3 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
4 Txslot	Target (dBm)	20.5	20.5	20.5
4 1 X SIOL	Tolerance ±(dB)	1.0	1.0	1.0
	GSM 1900 GPRS	(GMSK) (Burst A	verage Power)	
C	hannel	512	661	810
1 Txslot	Target (dBm)	25.5	25.5	25.5
1 TASIOU	Tolerance ±(dB)	1.0	1.0	1.0
2 Txslot	Target (dBm)	22.5	22.5	22.5
2 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
3 Txslot	Target (dBm)	21.0	21.0	21.0
3 1 X SIOL	Tolerance ±(dB)	1.0	1.0	1.0
4 Txslot	Target (dBm)	19.5	19.5	19.5
4 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
	GSM 1900 EGPI	RS (8SK) (Burst A	verage Power)	
C	hannel	512	661	810
1 Txslot	Target (dBm)	23.5	23.5	23.5
1 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
2 Txslot	Target (dBm)	22.0	22.0	21.0
2 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
3 Txslot	Target (dBm)	21.0	21.0	21.0
3 1 X 8101	Tolerance ±(dB)	1.0	1.0	1.0
4 Txslot	Target (dBm)	17.5	17.5	17.5
4 I XSIOL	Tolerance ±(dB)	1.0	1.0	1.0

GSM Speech <SIM2>

GSM 850 (GMSK) (Burst Average Power)							
Channel	nel Channel 251 Channel 190 Channel 1						
Target (dBm)	30.5	30.5	30.5				
Tolerance ±(dB)	1.0	1.0	1.0				
	GSM 1900 (GMSK) (Burst Average Power)						
Channel	Channel 810	Channel 661	Channel 512				
Target (dBm)	25.0	25.0	25.0				
Tolerance ±(dB)	1.0	1.0	1.0				

	GSM 850 GPRS	(GMSK) (Burst A	verage Power)	
C	hannel	128	190	251
1 Txslot	Target (dBm)	30.0	30.0	30.0
I I XSIOL	Tolerance ±(dB)	1.0	1.0	1.0
2 Txslot	Target (dBm)	27.0	28.0	28.0
2 1 XSIOU	Tolerance ±(dB)	1.0	1.0	1.0
3 Txslot	Target (dBm)	26.0	26.0	26.0
2 1 / 2001	Tolerance ±(dB)	1.0	1.0	1.0
4 Tuelet	Target (dBm)	23.5	23.5	23.5
4 Txslot	Tolerance ±(dB)	1.0	1.0	1.0
	GSM 850 EGPR	S (8PSK) (Burst A	verage Power)	
C	hannel	128	190	251
1 Txslot	Target (dBm)	27.5	27.5	27.5
1 1 XSIOU	Tolerance ±(dB)	1.0	1.0	1.0
2 Txslot	Target (dBm)	25.0	25.0	25.0
2 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
3 Txslot	Target (dBm)	22.5	22.5	22.5
3 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
4 Txslot	Target (dBm)	20.5	20.5	20.5
4 TXSIOL	Tolerance ±(dB)	1.0	1.0	1.0
	GSM 1900 GPRS	(GMSK) (Burst A	Average Power)	
C	hannel	512	661	810
1 Txslot	Target (dBm)	25.0	25.0	25.0
1 1 XSIOU	Tolerance ±(dB)	1.0	1.0	1.0
2 Txslot	Target (dBm)	22.5	22.5	22.5
2 1 / 5101	Tolerance ±(dB)	1.0	1.0	1.0
3 Txslot	Target (dBm)	20.5	20.5	20.5
3 1 x310t	Tolerance ±(dB)	1.0	1.0	1.0
4 Txslot	Target (dBm)	19.5	19.5	19.5
4 1 / 3101	Tolerance ±(dB)	1.0	1.0	1.0
	GSM 1900 EGPF	RS (8SK) (Burst A	verage Power)	
C	hannel	512	661	810
1 Txslot	Target (dBm)	23.5	23.5	23.5
1 1 XSIOU	Tolerance ±(dB)	1.0	1.0	1.0
2 Txslot	Target (dBm)	22.0	22.0	21.5
2 TXSIOU	Tolerance ±(dB)	1.0	1.0	1.0
3 Txslot	Target (dBm)	19.5	19.5	19.5
3 IXSIOU	Tolerance ±(dB)	1.0	1.0	1.0
4 Txslot	Target (dBm)	17.5	17.5	17.5
4 TXSIO	Tolerance ±(dB)	1.0	1.0	1.0

#### **UMTS**

UMTS Band V						
Channel	Channel 4132	Channel 4183	Channel 4233			
Target (dBm)	21.0	22.0	22.0			
Tolerance ±(dB)	1.0	1.0	1.0			
UMTS Band V HSDPA(sub-test 1)						
Channel	Channel 4132	Channel 4183	Channel 4233			
Target (dBm)	22.0	22.0	22.0			
Tolerance ±(dB)	1.0	1.0	1.0			

UMTS Band V HSDPA(sub-test 2)								
Channel	Channel 4132	Channel 4183	Channel 4233					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
	UMTS Band V HSDPA(sub-test 3)							
Channel	Channel 4132	Channel 4183	Channel 4233					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSDPA(sub-test 4)						
Channel	Channel 4132	Channel 4183	Channel 4233					
Target (dBm)	22.0	21.0	21.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 1)						
Channel	Channel 4132	Channel 4183	Channel 4233					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 2)						
Channel	Channel 4132	Channel 4183	Channel 4233					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 3)						
Channel	Channel 4132	Channel 4183	Channel 4233					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
UMTS Band V HSUPA(sub-test 4)								
Channel	Channel 4132	Channel 4183	Channel 4233					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 5)						
Channel	Channel 4132	Channel 4183	Channel 4233					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					

UMTS Band II								
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSDPA(sub-test 1)						
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
	UMTS Band II I	HSDPA(sub-test 2)						
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	21.0	21.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSDPA(sub-test 3)						
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	21.0	21.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
	UMTS Band II HSDPA(sub-test 4)							
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	21.0	21.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 1)						
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	22.0	22.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 2)						
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	22.0	21.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 3)						
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	22.0	21.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 4)						
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	22.0	21.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					
		HSUPA(sub-test 5)						
Channel	Channel 9262	Channel 9400	Channel 9538					
Target (dBm)	22.0	21.0	22.0					
Tolerance ±(dB)	1.0	1.0	1.0					

			Band 2	,		
	Ohanaa		Hz [ <rb=1></rb=1>		Ohanna	40402
Channel		18607		18900	Channe	
Towark (dDox)	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	21.0	21.0	22.0	21.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0 <b>W:1.4MHz [</b> •	1.0	1.0	1.0	1.0
					Channel	10402
Channel	Channe		Channe		Channe	
T ( / ID )	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	22.0 1.0	21.0	22.0	21.0
Tolerance ±(dB)	1.0	1.0		1.0	1.0	1.0
	Ohanaa		tz [ <rb=1>]</rb=1>	140000	Ohanna	40405
Channel	Channe			1 18900	Channe	
Toront (dRm)	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	23.0	23.0	23.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
		W:3MHz [ <f< td=""><td></td><td></td><td></td><td></td></f<>				
Channel	Channe		Channe		Channe	
	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	22.0	22.0	22.0	21.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
			tz [ <rb=1>]</rb=1>			
Channel	Channe			1 18900	Channe	
Chamic	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	22.0	23.0	22.0	23.0	23.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
	B	W:5MHz [ <r< td=""><td>B=12&gt;, <rb< td=""><td>=25&gt;]</td><td></td><td></td></rb<></td></r<>	B=12>, <rb< td=""><td>=25&gt;]</td><td></td><td></td></rb<>	=25>]		
Channal	Channe	1 18625	Channe	1 18900	Channel	19175
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	23.0	23.0	22.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
		BW:10M	Hz [ <rb=1>]</rb=1>			
Ohannal	Channe	1 18650	Channe	1 18900	Channe	19150
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	21.0	23.0	22.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
	BV	V:10MHz [ <f< td=""><td>RB=25&gt;, <re< td=""><td>3=50&gt;]</td><td></td><td></td></re<></td></f<>	RB=25>, <re< td=""><td>3=50&gt;]</td><td></td><td></td></re<>	3=50>]		
011	Channe	1 18650	Channe	1 18900	Channel	19150
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	22.0	23.0	22.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
			Hz [ <rb=1>]</rb=1>			
	Channe	18675		1 18900	Channel	19125
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	23.0	22.0	22.0	21.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
relevantes ±(ab)		V:15MHz [ <f< td=""><td></td><td></td><td>1.5</td><td>1.0</td></f<>			1.5	1.0
		18675		18900	Channe	19125
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	23.0	22.0	22.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
Tolerance ±(ub)	1.0				1.0	1.0
BW:20MHz [ <rb=1>]  Channel 18700</rb=1>						
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Torget (dP-s)						
Target (dBm)	22.0	21.0	21.0	21.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
		/:20MHz [ <r< td=""><td></td><td></td><td>01</td><td>40400</td></r<>			01	40400
Channel		1 18700		1 18900	Channel	
	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	23.0	22.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0

		LTE	Band 5			
		BW:1.4M	Hz [ <rb=1></rb=1>	1		
Channel	Channe	1 20407	Channe	el 20525	Channe	120643
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	23.0	22.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
	В	W:1.4MHz [<	<rb=3>, <ri< td=""><td>B=6&gt;]</td><td></td><td></td></ri<></rb=3>	B=6>]		
Channel	Channe	1 20407	Channe	el 20525	Channe	120643
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	23.0	22.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
		BW:3MF	lz [ <rb=1>]</rb=1>			
Channel	Channe	l 20415	Channe	el 20525	Channe	120635
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	21.0	22.0	21.0	22.0	21.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
	Е	3W:3MHz [ <f< td=""><td>RB=8&gt;, <rb=< td=""><td>=15&gt;]</td><td></td><td></td></rb=<></td></f<>	RB=8>, <rb=< td=""><td>=15&gt;]</td><td></td><td></td></rb=<>	=15>]		
Channel	Channe	el 20415	Channe	el 20525	Channe	I 20635
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	21.0	22.0	21.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
		BW:5MF	lz [ <rb=1>]</rb=1>			
Channel	Channe	l 20425	Channel 20525		Channe	120625
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.1	22.1	22.0	22.0	22.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
	В	W:5MHz [ <r< td=""><td>B=12&gt;, <rb< td=""><td>=25&gt;]</td><td></td><td></td></rb<></td></r<>	B=12>, <rb< td=""><td>=25&gt;]</td><td></td><td></td></rb<>	=25>]		
Channel	Channe	l 20425	Channe	el 20525	Channe	120625
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	23.0	22.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
		BW:10M	Hz [ <rb=1></rb=1>	]		
Channel	Channe	l 20450	Channe	el 20525	Channe	120600
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	22.0	22.0	21.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
	BV	W:10MHz [ <f< td=""><td>RB=25&gt;, <re< td=""><td>3=50&gt;]</td><td></td><td></td></re<></td></f<>	RB=25>, <re< td=""><td>3=50&gt;]</td><td></td><td></td></re<>	3=50>]		
Channel	Channe	l 20450	Channe	el 20525	Channe	120600
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
		00.0	22.0	22.0	22.0	22.0
Target (dBm)	23.0	22.0	22.0	22.0	23.0	22.0

		LTE	Band 7			
		BW:5MI	Hz [ <rb=1>]</rb=1>			
Channel	Channe	el 20775	Channe	el 21100	Channel 21425	
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	22.0	23.0	22.0	22.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
			B=12>, <rb< td=""><td>=25&gt;]</td><td></td><td></td></rb<>	=25>]		
Channel		el 20775		el 21100	Channe	
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	21.0	21.0	22.0	21.0	21.0	21.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
			Hz [ <rb=1>]</rb=1>			
Channel	Channe	l 20800	Channe	el 21100	Channe	l 21400
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	22.0	21.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
	B\	N:10MHz [<	RB=25>, <re< td=""><td>3=50&gt;]</td><td></td><td></td></re<>	3=50>]		
Channel	Channe	el 20800	Channe	el 21100	Channel 21400	
	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	21.0	21.0	22.0	22.0	22.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
r oloranos =(ab)	1.0		Hz [ <rb=1>]</rb=1>		1.0	1.0
	Channe			1 21100	Channe	1 21375
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	21.0	21.0	21.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
\ / \	BV	V:15MHz [ <f< td=""><td>RB=37&gt;, <re< td=""><td>3=75&gt;1</td><td></td><td>•</td></re<></td></f<>	RB=37>, <re< td=""><td>3=75&gt;1</td><td></td><td>•</td></re<>	3=75>1		•
01 1	Channe			1 21100	Channe	1 21375
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	21.0	23.0	22.0	23.0	23.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
		BW:20M	Hz [ <rb=1>]</rb=1>			
01 1	Channe			1 21100	Channe	1 21350
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	23.0	22.0	22.0	22.0	23.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0
	BW		B=50>, <rb< td=""><td>=100&gt;]</td><td></td><td></td></rb<>	=100>]		
Oharraal	Channe			1 21100	Channe	121350
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Target (dBm)	22.0	22.0	23.0	22.0	22.0	21.0
Tolerance ±(dB)	1.0	1.0	1.0	1.0	1.0	1.0

#### LTE Band 41

		LIL	Band 41				
			lz [ <rb=1>]</rb=1>				
Channel	Channel 39675		Channe	l 40620	Channel 41565		
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
Target (dBm)	/	/	23.0	22.0	/	/	
Tolerance ±(dB)	/	/	1.0	1.0	/	/	
		W:5MHz [ <r< td=""><td>B=12&gt;, <rb< td=""><td>=25&gt;]</td><td></td><td></td></rb<></td></r<>	B=12>, <rb< td=""><td>=25&gt;]</td><td></td><td></td></rb<>	=25>]			
Channel	Channe	l 39675	Channe	l 40620	Channe	l 41565	
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
Target (dBm)	/	/	22.0	22.0	/	/	
Tolerance ±(dB)	/	/	1.0	1.0	/	/	
		BW:10M	Hz [ <rb=1>]</rb=1>				
Channel	Channe	l 39700	Channe	l 40620	Channe	l 41540	
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
Target (dBm)	/	/	23.0	22.0	/	/	
Tolerance ±(dB)	/	/	1.0	1.0	/	/	
	B\	N:10MHz [ <f< td=""><td></td><td></td><td></td><td></td></f<>					
Channel	Channel 39700		Channe	l 40620	Channe	l 41540	
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
Target (dBm)	/	/	23.0	22.0	/	/	
Tolerance ±(dB)	/	/	1.0	1.0	/	/	
		BW:15M	Hz [ <rb=1>]</rb=1>				
Channel	Channe	l 39725	Channe	l 40620	Channel 41515		
Channel	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
Target (dBm)	/	/	23.0	22.0	/	/	
Tolerance ±(dB)	/	/	1.0	1.0	/	/	
	BW:15MHz [ <rb=37>, <rb=75>]</rb=75></rb=37>						
Channel		l 39725		l 40620	Channe	l 41515	
Charmer	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
Target (dBm)	/	/	22.0	21.0	/	1	
Tolerance ±(dB)	/	/	1.0	1.0	/	1	

#### WiFi 2.4G

802.11b (Average)						
Channel	Channel 1	Channel 6	Channel 11			
Target (dBm)	15.0	16.0	16.0			
Tolerance ±(dB)	1.0	1.0	1.0			
Tolerance ±(db)			1.0			
	802.11g (A	verage)				
Channel	Channel 1	Channel 6	Channel 11			
Target (dBm)	Target (dBm) 18.0		20.0			
Tolerance ±(dB)	Tolerance ±(dB) 1.0		1.0			
	802.11n HT20	(Average)				
Channel	Channel 1	Channel 6	Channel 11			
Target (dBm)	19.0	19.0	19.0			
Tolerance ±(dB)	1.0	1.0	1.0			
802.11n HT40 (Average)						
Channel	Channel 3	Channel 6	Channel 9			
Target (dBm)	19.0	19.0	19.0			
Tolerance ±(dB)	1.0	1.0	1.0			

#### WLAN 5GHz U-NI-1

IEEE 802.11a (Average)							
Channel	Channel 36	Channel 40		Channel 48			
Target (dBm)	20.0	20.0		19.0			
Tolerance ±(dB)	1.0	1.0		1.0			
IEEE 802.11n(20MHz) (Average)							
Channel	Channel 36	Channel 40		Channel 48			
Target (dBm)	18.0	20.0		19.0			
Tolerance ±(dB)	1.0	1.0		1.0			
IEEE 802.11n(40MHz) Average)							
Channel	Channel 38		Channel 46				
Target (dBm)	21.0		19.0				
Tolerance ±(dB)	1.0			1.0			
IEEE 802.11ac(20MHz) (Average)							
Channel	Channel 36	Chann	el 40	Channel 48			
Target (dBm)	16.0	18.0		17.0			
Tolerance ±(dB)	1.0	1.0		1.0			
IEEE 802.11ac(40MHz) Average)							
Channel	Channel 38		Channel 46				
Target (dBm)	19.0		18.0				
Tolerance ±(dB)	1.0		1.0				

#### WLAN 5GHz U-NI-3

IEEE 802.11a (Average)							
Channel	Channel 149	Channel 157		Channel 165			
Target (dBm)	15.0	15.0		15.0			
Tolerance ±(dB)	1.0	1.0		1.0			
IEEE 802.11n(20MHz) (Average)							
Channel	Channel 149	Channel 157		Channel 165			
Target (dBm)	17.0	15.0		14.0			
Tolerance ±(dB)	1.0	1.0		1.0			
IEEE 802.11n(40MHz) HT20 (Average)							
Channel	Channel 151		Channel 159				
Target (dBm)	16.0		16.0				
Tolerance ±(dB)	1.0			1.0			
IEEE 802.11n(20MHz) (Average)							
Channel	Channel 149	Channel 157		Channel 165			
Target (dBm)	15.0	13.0		12.0			
Tolerance ±(dB)	1.0	1.0		1.0			
IEEE 802.11ac(40MHz) HT20 (Average)							
Channel	Channel 151		Channel 159				
Target (dBm)	16.0		14.0				
Tolerance ±(dB)	1.0		1.0				

#### Bluetooth V4.0

BLE-GFSK (Average)						
Channel	Channel 0	Channel 19	Channel 39			
Target (dBm)	3.0	2.0	4.0			
Tolerance ±(dB)	1.0	1.0	1.0			
GFSK (Average)						
Channel	Channel 0	Channel 39	Channel 78			
Target (dBm)	3.0	2.0	3.0			
Tolerance ±(dB)	1.0	1.0	1.0			
π/4DQPSK (Average)						
Channel	Channel 0	Channel 39	Channel 78			
Target (dBm)	2.0	2.0	3.0			
Tolerance ±(dB)	1.0	1.0	1.0			
8DPSK (Average)						
Channel	Channel 0	Channel 39	Channel 78			
Target (dBm)	2.0	2.0	3.0			
Tolerance ±(dB)	1.0	1.0 1.0				

Then these appropriate gain settings are stored in each device individually. The user has no possibility to change these settings later on, and during manufacturing each device will be individual calibrated. The measurement is done in fully calibrated setup, which is based on the base station simulator. Furthermore, the highest power level is verified afterwards measurement on three channels (low, middle and high)

Sincerely,

#### Huang Jianning

Signature

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