



## (2) Detailed power measurement results of 9 sets UL duty cycle configuration for n41:

























**80% <K9 ≤100%** (The mobile phone is connected to the radio communication tester) Set UL duty cycle=88%,  $P_{max} = 24.50$  (dBm) and  $P_{SAR} = 6.00$  (dB), then  $P_{cmax} = P_{max} - Max(P_{SAR} - P_{offset}@k9, 0) = 24.50$ -Max(6.00-0,0) = 18.50 (dBm),  $P_{cmax}(meas.)=17.59$  (dBm).

When the UL duty cycle is high, such as 100%, the mobile phone and the radio communication tester cannot be established, SAR testing using factory test mode.

SAR testing is performed at  $P_{cmax}$ (meas.), and the measurement SAR( $P_{cmax}$  meas.= 17.59 dBm) will be extended to report SAR( $P_{cmax}$  tune up=18.50 dBm)



\*If there is only one TDD-UL-DL-Pattern configured, the ULDutyCycle should be:

ULDutyCycle = UL symbols / Total symbols

= (nrofUplinkSymbols + 14 \* nrofUplinkSlots) / 14 \* Number of Slots via 38.213 v16.5 -11.1

\*If there is more than one TDD-UL-DL-Pattern configured, the ULDutyCycle should be:

ULDutyCycle = (UL symbols(pattern 1) + UL symbols(pattern 2) [+ ...]) / 14 \* (Number of Slots in pattern1 + pattern2 [+ ...])

\*If dI-UL-TransmissionPeriodicity-v1530 is conifgured, the UL Duty Cycle should follow dI-UL-TransmissionPeriodicity-v1530 instead.

Note: FDD NR has the same characteristics as TDD NR.





(3) Detailed power measurement results of 6 sets UL duty cycle configuration for B38: **0%< K1 ≤20%** (Config5) P<sub>cmax</sub> (Meas.)(dBm) 22.70 UL duty cycle (Meas.) 10.71%~11.67% Set UL duty cycle=10.71% (uplink-downlink configuration 5 and special subframe configuration 4),  $P_{max}$  = 23.00 (dBm) and  $P_{SAR}$  = 2.50 (dB), then  $P_{cmax}$  =  $P_{max}$  -  $Max(P_{SAR}$  -  $P_{offset}$  @k1, 0) = 23.00-Max(2.50-5,0) = 23.00 (dBm) , P<sub>cmax</sub>(meas.)=22.70 (dBm). 46 LTE 40.105#044 ation 🕃 TDDULDLCONF TDD - Uplink Do ink Co dth Output Le 0 UE Power : 22.7 dBm Signaling Measurement 😔 Level Physical Channel Power Mo Main U 0 Ts -27.09 dB 4.0 dB (dBm) 40 < Preset 30 Bb 0.0 ge Mod Signal UL RMC •---> Single DL RMC Subframe 0 S TOD Subfran Uplink Downlink Configuration (10ms) D S U D D D D D D D Configuration -60 -70 -80 Start Call [subframe] End Cal On Pc Off Power (Before) Off Power (After) < Menu





<b>20%&lt; K2≤ 30%</b> (Config4)	P <sub>cmax</sub> (Meas.)(dBm)	22.60	UL duty cycle (Meas.)	20.71%~21.67%					
Set UL duty cycle=20.71% ( uplink-downlink configuration 4 and special subframe configuration 4), $P_{max} = 23.00 (dBm)$ and $P_{SAR} = 2.50 (dB)$ , then $P_{cmax} = P_{max} - Max(P_{SAR} - P_{offset}@k2, 0) = 23.00-Max(2.50-3.5,0) = 23.00 (dBm)$ , $P_{cmax}(meas.)=22.60 (dBm)$ .									
23.00-Max(2.50-3.5,0) = 23.0	20 (dBm) , P <sub>cmax</sub> (meas.)	22.60 (dE	Sm). Upint Downlink Configuration () TDUUDCC People and the the TDU Upint Configuration () TDUUDCC UE Power : 22 Net Cont : 1/ 1 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0	ONF       A MTSS2IC         202/02/11 B1D         FE Output : On         AI         AII         AII					





<b>20%&lt; K2≤ 30%</b> (Config2)	P <sub>cmax</sub> (Meas.)(dBm)	22.60	UL duty cycle (Meas.)	21.43%~23.33%					
Set UL duty cycle=21.43% (	uplink-downlink configu	ration 2 a	nd special subframe con	figuration 4),					
$P_{max}$ = 23.00 (dBm) and $P_{SAR}$ = 2.50 (dB), then $P_{cmax}$ = $P_{max}$ - Max( $P_{SAR}$ - $P_{offset}$ @k2, 0) =									
23.00-Max(2.50-3.5,0) = 23.00 (dBm) , P <sub>cmax</sub> (meas.)=22.60 (dBm).									
46 LTE 40.105#044	L Channel TPC Pattern Input L 18000.ch Autor peration Rand Channel Bandwidth Outord	evel TDI 26.0 dBm Thi sign	D - Uplink Downlink Configuration (2) TDDULDLC is parameter is determined by the TDD Uplink/Dov al configuration.	ONF /1 MT8821C wnlink 2022/02/11 18:08 RE Output : On					
scc4 scc5 scc6 scc7 ℃	18 20 MHz Measurement Signali	SOLO dBm	UE Power : 22	2.6 dBm D Band Cal					
Physical Sevel	Power Monitor		Main Scree	n					
Call Main DL 4.0 dB Main DL 8.0 48	[dBm] 0 Ts 40 -27.10 dBm		Meas. Count : 1/ 1	<pre>// Preset</pre>					
TX AUX1 0.0 dB	30 20 Middlet		View Posta	an End					
RX Measurement	10 0		Subframe	Avg. Tx					
Fundamental Measurement DL RMC	-10		Subframe ->	10 Single					
	-30 -40		Subframe <-	Continuous					
2 : (Sms) D S U D D D S U D D Test Special Subframe Configuration Parameter	-50			Connected					
	-80	uttramel	10	- <b>e</b> _					
Band Definition	Avg. On Power	Max M	lin. dBm	Start Call					
External Loss	Off Power (Before) Off Power (After)		dBm	End Call					
System Config				< Menu					





<b>30%&lt; K3 ≤40%</b> (Config3)	P <sub>cmax</sub> (Meas.)(dBm)	22.20 UL duty cyc	le (Meas.) 30	0.71%~31.67%
Set UL duty cycle=30.71% ( P <sub>max</sub> = 23.00 (dBm) and 23.00-Max(2.50-2,0) = 22.50	uplink-downlink configu P <sub>SAR</sub> = 2.50 (dB), th (dBm), P <sub>cmax</sub> (meas.)=2	iration 3 and special su ien P <sub>cmax</sub> = P <sub>max</sub> – 22.20 (dBm).	ıbframe configu Max(P <sub>SAR</sub> –P₀	ıration 4), <sub>ffset</sub> @k3, 0) =
AS LTE 40,105#044         PCC       SCC1       SCC2       SCC3         SCC4       SCC5       SCC6       SCC7         Common       Image: Common and the second and t	UL Channel 3900 ch Operation Band 38 Measurement Signal Power Monitor (dBm) 40 50 10 50 50 50 50 50 50 50 50 50 5	Itevel       TOD - Uplink Downlink Co         Thyparameter is determine         Uling         Meas. Court :       1/         Image: State Sta	Afguration & TDDULDLCONF d by the TDD Uplink/Downling UE Power : 22.2 d Power Manitor Storage Mode Subframe Subframe 	<ul> <li>A MTB82IC 2022/02/11 18:09 RE Output: On</li> <li>Bm</li> <li>Band Cal</li> <li>C Preset</li> <li>End</li> <li>Tx</li> <li>Re</li> <li>Contexted</li> <li>Single</li> <li>Contexted</li> <li>Sitart Cal</li> <li>End Cali</li> <li>C Menu</li> </ul>





<b>40%&lt; K4 ≤50%</b> (Config1) P <sub>cmax</sub> (Meas.)(dE	m) 21.70	UL duty cycle (Meas.)	41.43%~43.33%
Set UL duty cycle=41.43% ( uplink-downlink co $P_{max} = 23.00$ (dBm) and $P_{SAR} = 2.50$ (dB 23.00-Max(2.50-1.5,0) = 22.00 (dBm) , $P_{cmax}(m)$	nfiguration 1 an 3), then P <sub>cmax</sub> eas.)=21.70 (d	nd special subframe co = P <sub>max</sub> – Max(P <sub>SAR</sub> Bm).	nfiguration 4), - P <sub>offset</sub> @k4, 0) =
46 LTE 40.105#044 FCC SCC1 SCC2 SCC3 SCC4 SCC5 SCC5 SCC7 Common SCC4 SCC5 SCC5 SCC7 Common SCC4 SCC5 SCC5 SCC7 Common Call III Plate Call III Plate Call III Plate Call III Plate Call III Plate Processing TX Measurement Plate Processing Scc4 SCC5 SCC5 SCC7 Measurement Plate Processing TX Measurement Scc4 SCC5 SCC5 SCC7 Measurement Plate Scc4 SCC5 SCC5 SCC7 Measurement Scc4 SCC5 SCC5 SCC7 Measurement Scc6 SCC7 Scc6 SCC7 Measurement Scc6 SCC7 Measurement Scc6 SCC7 Scc6 SCC7 Measurement Scc6 SCC7 Scc6 SCC7 Scc6 SCC7 Measurement Scc6 SCC7 Scc6 SCC7 Scc6 SCC7 Scc6 SCC7 Scc6 SCC7 Scc6 SCC7 Scc7 Scc7 Scc7 Scc7 Measurement Scc6 Scc7 Scc7 Scc7 Measurement Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Measurement Scc7 Scc7 Scc7 Scc7 Measurement Scc7 Scc7 Scc7 Scc7 Measurement Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Measurement Scc7 Scc7 Scc7 Scc7 Measurement Scc7 Scc7 Scc7 Scc7 Measurement Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc7 Scc	Input Level SUID dBm Output Level SUID dBm Stignaling It ship Suid dBm (subframe) Avg. Max. N 	D - Uplink Downlink Configuration (2) TODUL is parameter is determined by the TDU Uplink and configuration. UE Power : Mease Count : 1/ 1 Mease Count : 1/ 1/ 1 Mease Count : 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/	Diconer   Converting   A massed cal   Se Output: On   21.7 dBm   Image cal   Monitor   Aug   Monitor   Monit





<b>50%&lt; K5 ≤60%</b> (Config6)	P <sub>cmax</sub> (Meas.)(dBm)	20.70	UL duty cycle (Meas.)	51.43%~53.33%
Set UL duty cycle=51.43% ( P <sub>max</sub> = 23.00 (dBm) and 23.00-Max(2.50-0.5,0) = 21.0	uplink-downlink configu P <sub>SAR</sub> = 2.50 (dB), th 00 (dBm), P <sub>cmax</sub> (meas.)	ration 6 a en P <sub>cmax</sub> =20.70 (d	nd special subframe cor = P <sub>max</sub> – Max(P <sub>SAR</sub> - IBm).	nfiguration 4), – P <sub>offset</sub> @k5, 0) =
AIS LTE 40.105#044         PCC       SCC1       SCC2       SCC3         SCC4       SCC5       SCC6       SCC7         Common       Image: Common and the second and	UL Channel 30000 ch Operation Band 38 Measurement 120 Mer: Measurement 120 Mer: 120 Mer:	Level 2600 dBm ing 300 dBm ing 300 dBm ing 400 dBm in	20- Uplink Downlink Configuration (2) TDOUD his parameter is determined by the TDD Uplink/ I was configuration. UE Power : Meas. Count : 1/ 1 Weeks. Count : 1/ 1 UVew Pos Storage I Subfram 	Configure   Consider   Cons





60%< K6 ≤	63.3% (Config0)	P <sub>cmax</sub> (Meas.)(dBm)	20.20	UL duty cycle (Mea	as.) 61.43%	~63.33%				
Set UL duty cycle=61.43% ( uplink-downlink configuration 0 and special subframe configuration 4),										
$P_{max} = 23$	.00 (dBm) and	$P_{SAR} = 2.50$ (dB), th	nen P <sub>cmax</sub>	$c = P_{max} - Max(P_{s})$	<sub>SAR</sub> – P <sub>offset</sub> @	0k6, 0) =				
23.00-Max(	(2.50-0.0) = 20.50	(dBm) Pomax(meas )=	:20 20 (dF	3m)						
20100 1110.1	(,,,	(a=); . cmax(eae)	_00 (4-							
0.45										
SAF	testing is perform	ned at P <sub>cmax</sub> (meas.), ar	na the me		<sub>ax</sub> meas.= 20.	20 aBm)				
will	be extended to re	port SAR(P <sub>cmax</sub> tune up	9=20.50 d	Bm).						
46 LTE 40.105#	044									
PCC SCC	n sccz scc3 <sup>l</sup>	JL Channel TPC Pattern Inpu 38000 ch Auto	rt Level 7 23.0 d8m	<b>'DD - Uplink Downlink Configuration R</b> This parameter is determined by the TDD ional configuration.	TDDULDLCONF A	MT8821C 2/02/11 18:17				
SCC4 SCC	s scce scc7 (	Operation Band Channel Bandwidth Out 38 20 MHz	put Level -500 dBm		8 RF (	Dutput : On				
Common	▶ ★ <	Measurement Sign	aling	UE Pow	er : 20.2 dBm 🛄	Band Cal				
Physical	🖌 Level	Power Monitor			Main Screen					
Charitien	Main UL 4.0 dB	IdBm) 0 Ts		1047 His Dr. 1000 Dr.	Power Monitor					
Call Processing	Main DL	40 -21.30 dBm		Meas. Count : 1/ 1		Preset				
TX	AUX1	30			View Position					
Measurement	000 48	20	1	April - also be a sea April of Market Planet Barlet	Storage Mode	End				
RX Second	Signal	10			Avg. Tx					
Translation of the second seco	ULRMC				10.					
Measurement	DLRMC	-20			Subframe	Single				
		-30			Subframe					
	Induction	-40			e	Continuous				
0	: (5ms) D S U U U D S U U U	-50								
Parameter	pecial Subframe Configuration	-70				connected				
		-80								
		0.	[subframe]	10		Start Call				
Band Definition		Avg.	Max.	Min. dBm		~				
External		Off Power (Before)		dBm		End Call				
Loss		Off Power (After)		seese (dbm)		144631071				
System						Menu				
and the second										
1										

Duty cycle = (30720Ts\*Ups+Uplink Component\*Specials)/ (307200Ts)

## Uplink Component=UpPTS

Duty cycle = [(30720Ts\*Ups) + UpPTS \*Specials]/ (307200Ts)

Different Duty cycles under different configurations:

	er.					Con	figuration of	special subfr	ame		
Unlink	Subframe			Normal cyclice prefix in downlink				Extended cyclice prefix in downlink			
Downlink configura		er	Normal cyclice prefix in uplink		Extended cyclice prefix in uplink		Normal cyclice prefix in uplink		Extended cyclice prefix in uplink		
tion	D	s	U	configura tion 0~4	configura tion 5~9	configura tion 0~4	configura tion 5~9	configura tion 0~3	configura tion 4~7	configura tion 0~3	configura tion 4~7
0	2	2	6	61.43%	62.85%	61.67%	63.33%	61.43%	62.85%	61.67%	63.33%
1	4	2	4	41.43%	42.85%	41.67%	43.33%	41.43%	42.85%	41.67%	43.33%
2	6	2	2	21.43%	22.85%	21.67%	23.33%	21.43%	22.85%	21.67%	23.33%
3	6	1	3	30.71%	31.43%	30.83%	31.67%	30.71%	31.43%	30.83%	31.67%
4	7	1	2	20.71%	21.43%	20.83%	21.67%	20.71%	21.43%	20.83%	21.67%
5	8	1	1	10.71%	11.43%	10.83%	11.67%	10.71%	11.43%	10.83%	11.67%
6	3	2	5	51.43%	52.85%	51.67%	53.33%	51.43%	52.85%	51.67%	53.33%

Note: FDD LTE does not support UL duty cycle detection mechanism.





## **ANNEX L: Accreditation Certificate**



\*\*\*END OF REPORT\*\*\*