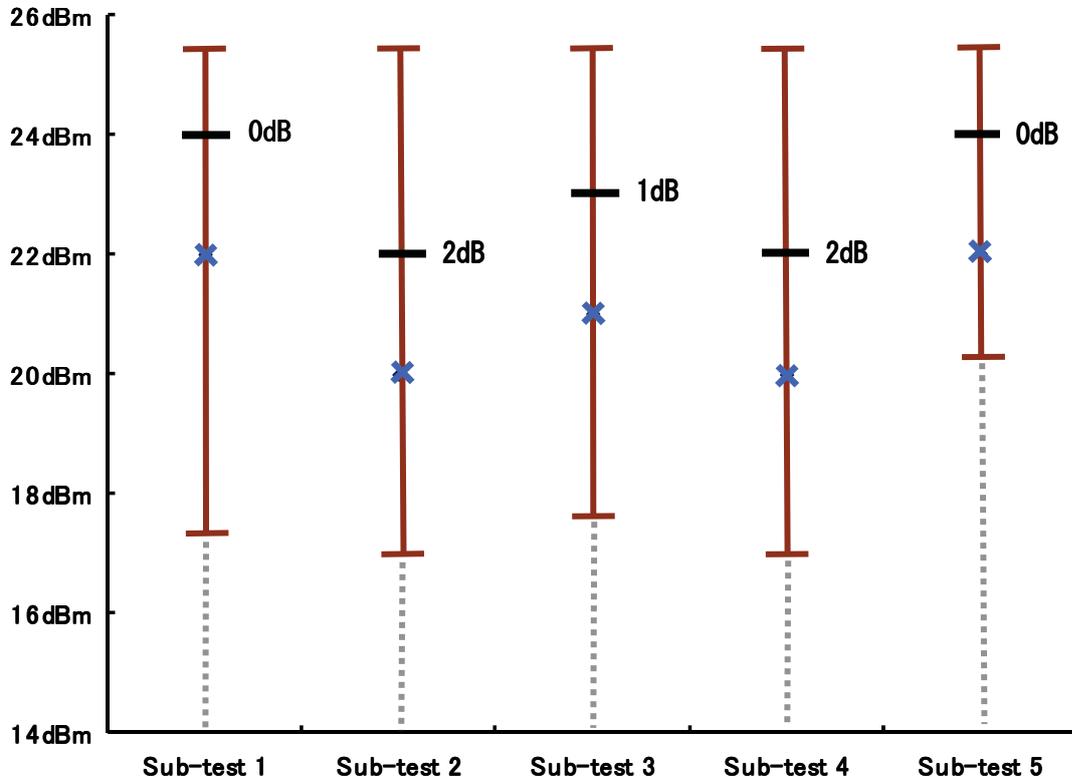


FCC ID : APYHRO00168

3GPP R6 HSPA Conducted Power



JQA Report Page 16 shows Relationship between parameter Subtest, MPR and Power Tolerance (dB).

JQA Report also says that Power Level of Subtest-1 should be set within 24dBm +1.7 / - 6.7.

This means that subtest-1 Max Power Level is 25.7dBm, Min Power Level is 17.3dBm. This Permitted Power Range is showed in Brown Color Solid-line in the above, and MPR(0,2,1,2,0), measured conducted power results **×** are also showed.

We can see through above graph that Subtest-1 MPR 0dB is positioned in higher of power range. *On the other hand, **Actual Conducted Power Measurement Results** **×** are set in around center of subtest-1. Thus similarly we can found our model's power-set is set in around center of each subtests specified in 3GPP R6 HSPA.*

Please note actual conducted power is settled to get pure RF signal through power up-down control procedure.

Conducted power measurement results ✕ (JQA SAR Report Page 19)

configuration		4182ch (836.40MHz)
R6 HSUPA	Sub-test 1	22.52 dBm
	Sub-test 2	20.65 dBm
	Sub-test 3	21.53 dBm
	Sub-test 4	20.50 dBm
	Sub-test 5	22.58 dBm

3GPP TS 34.121-1 V8.8.0 (2009-09)

Table 5.2B.5: Maximum Output Powers with HS-DPCCH and E-DCH for test

Sub-test in table C.11.1.3	Power Class 3		Power Class 4	
	Power (dBm)	Tol (dB)	Power (dBm)	Tol (dB)
1	+24 0dB	+1.7/-6.7	+21	+2.7/-5.7
2	+22 -2dB	+3.7/-5.2	+19	+4.7/-4.2
3	+23 -1dB	+2.7/-5.2	+20	+3.7/-4.2
4	+22 -2dB	+3.7/-5.2	+19	+4.7/-4.2
5	+24 0dB	+1.7/-3.7	+21	+2.7/-2.7

3GPP Release 6 HSPA Settings

Settings	Release 6 HSPA				
Sub-test	1	2	3	4	5
Loopback Mode	Mode 1				
Channel Coding	E-DCH RF Test with TTI 10ms (QPSK)				
TPC Algorithm	2				1
TPC Bit Pattern	Inner Loop Power Control				All 1
Beta C	10	6	15	2	15
Beta D	15	15	9	15	0
Absolute Grant Value	20	12	15	17	12
MPR (dB)	0	2	1	2	0
Power Tolerance (dB)	+1.7/-6.7	+3.7/-5.2	+2.7/-5.2	+3.7/-5.2	+1.7/-3.7

Note(s):

1. KDB 941225 D01 – SAR in voice and data modes is measured using a 12.2 kbps RMC. SAR in voice AMR configurations and for other spreading codes are not required when the maximum average output of each channel is less than ¼ dB higher than that measured in 12.2 kbps RMC.
2. KDB 941225 D01 – Body SAR for HSPA (HSDPA/HSUPA) is not required when the maximum average output with HSPA active is less than ¼ dB higher than that measured without HSPA using 12.2 kbps RMC and the maximum SAR for 12.2 kbps RMC is $\leq 75\%$ of the SAR limit.
3. KDB 941225 D02 – The maximum power reduction (MPR) on the order of 0, 2, 1, 2, 0 dB are expected for the subtests specified in R6 HSPA. Conducted power measurement results are set within 24 dBm +/- expected power tolerance.