Tune-up information RD8200SG

K68-CLASSIC C2PC

RD8200SG contains Bluetooth module K68-CLASSIC

Tune-up detail for SAR testing, using Bluesuite tools with the following parameters will result in 16dBm including maximum expected tolerance when measured at the u.fl connection.

GFSK

TXDATA1			CFG_FREQ			CFG_PKT	
LO_freq	Ext_Pow	Int_Pow	TX/RX_Int (uS)	Loopback_Int (uS)	Report_Int (Seconds)	Pkt_Type	Pkt_Size (bytes)
2402 2441 2480	EXT_PA level 0	INT PA level 45	1250	1875	1	15	339

To get the Worst case RF TX duty cycle (and hence worst case average TX power) is for DM5 (with 330byte packet length), one needs to set in Bluetest3 **TX/RX Int** value of 1250uS (this is lowest that can be set); which results in measured period of 3750uS. This makes the TX RF Duty cycle of 76.53%(=2870uS/3750uS).

That is why if TX power was measured with average RF power sensor, one would see the average TX power would 76.53% of 39.81mW (=16dBm which is set TX power of BT730-SC).

ASIDE: the Average TX power **within the TX burst** will same as Peak TX power **within the TX burst**, as for classic BT which uses modulation GFSK (which is constant envelope modulation scheme, so no change in amplitude form symbol to symbol); hence peak Tx power is same as Average TX power for constant envelope modulation scheme.