

FCC ID: ESCCRM293604 – Antenna Information

The antenna Guidant is using is the TDK HAN8030B2R4GT, which is built into the Mitsumi WML-C09 Bluetooth module. Since it is integral to the module, it is compliant with FCC 15.203. It is the only antenna used on the module. It is described in detail in the attached data sheet.

Please note that this same antenna was tested as part of Mitsumi's FCC certification of the WML-C09 Bluetooth module.

FCC ID POOWML-C10XX.

TDK RF Products for Wireless LAN

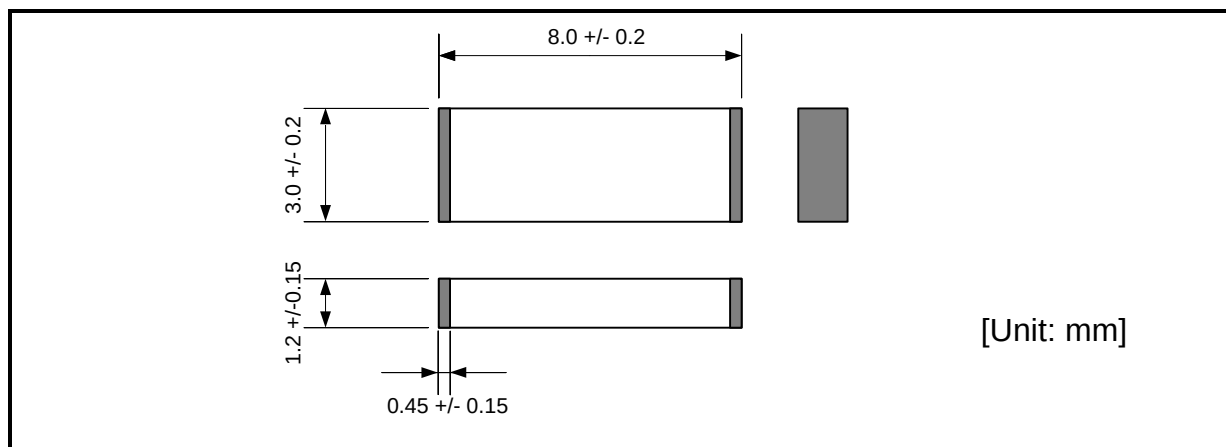
11/4/2002

for 2.4GHz

Antennas

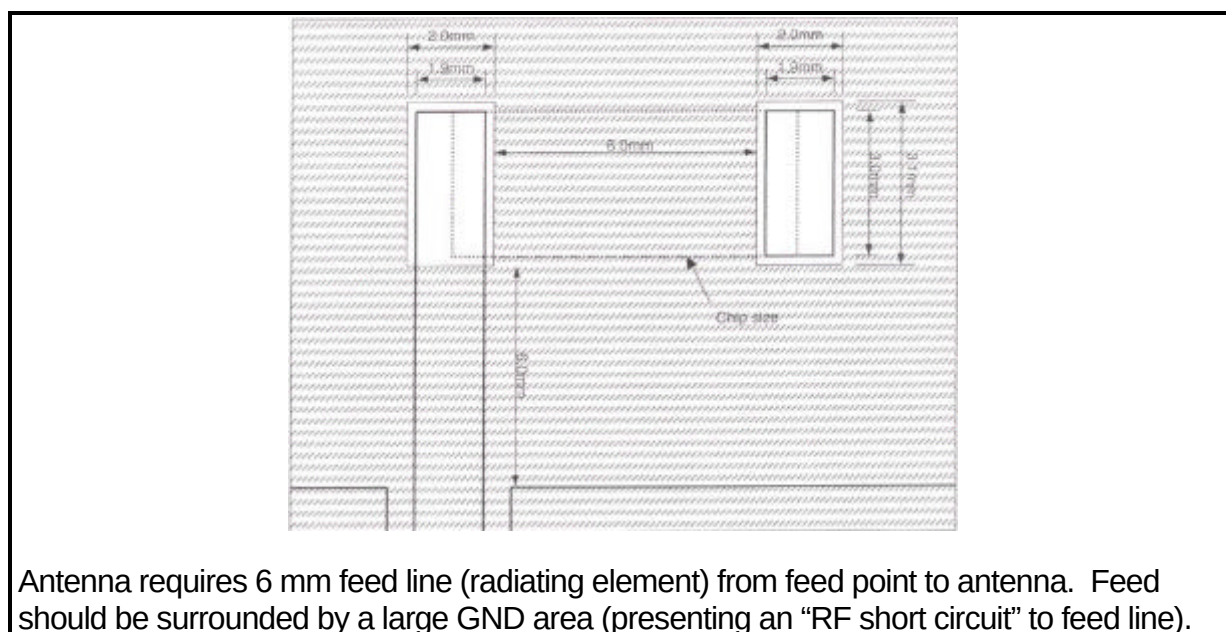
Start Freq. MHz	Stop Freq. MHz	Type	Gain dBi(typ)	Return loss dB (typ.)	Size mm (typ.)	Part No.
2400	2500	SMD ceramic patch	-5	-2.5	7.0x7.0x1.5	CANPB0715A
2400	2500	SMD ceramic patch	-3	-3	7.0x7.0x3.0	CANPB0730A
2400	2500	SMD ceramic patch	2	-6	12.0x12.0x4.0	CANPB1240A
2400	2500	SMD ceramic multilayer	+1	-15	8.0x3.0x1.2	HAN8030B2R4GT-000

	Sample Available
	Under developing

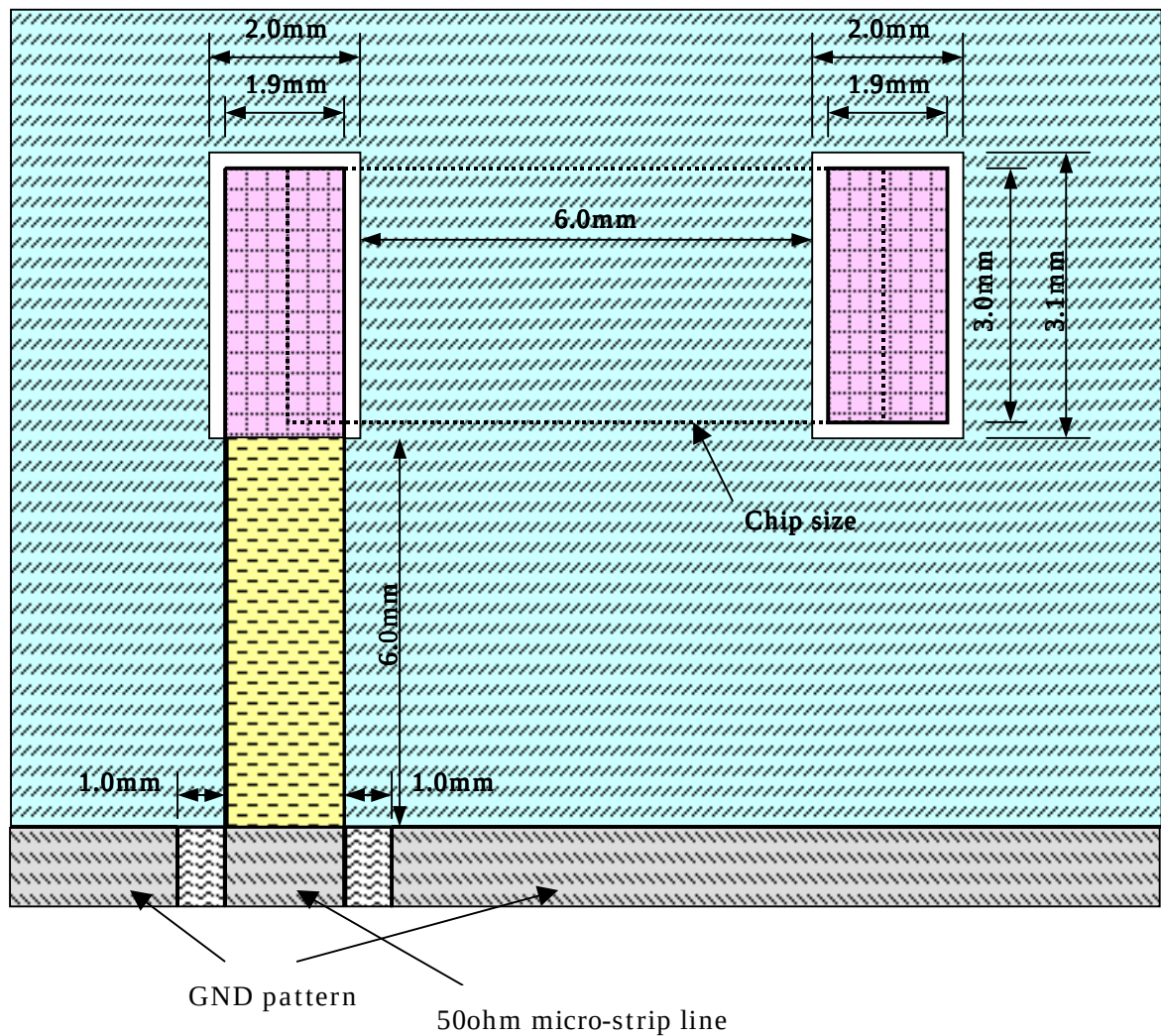
MULTI-LAYER ANTENNA FOR 2.4 GHz BLUETOOTH, W-LANP/N: **HAN8030B2R4GT-000****[MECHANICAL DIMENSIONS]****[ELECTRICAL CHARACTERISTICS]**

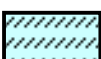
PARAMETER	FREQ (MHz)	MIN.	MAX.	UNIT
Centre frequency		2442		MHz
Bandwidth		85		MHz
Max Antenna Gain	2400-2485		2	dBi
Impedance	2400-2485	50		ohm
V.S.W.R.	2400-2485		2	

Operating temperature	-25	+70	°C
Storage temperature	-40	+85	°C

[RECOMMENDED PCB PATTERN]

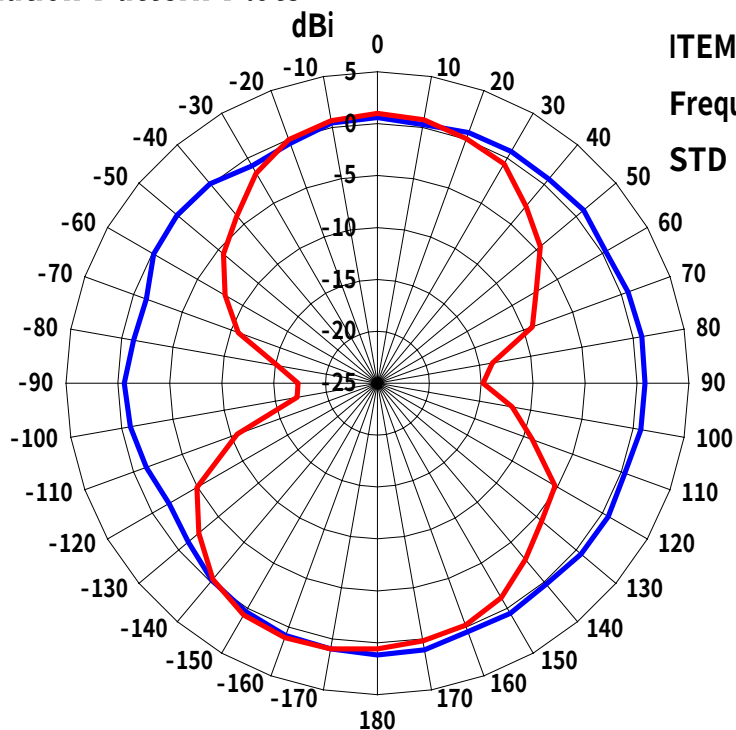
Recommended PCB Pattern for HAN8030B2R4GT-000



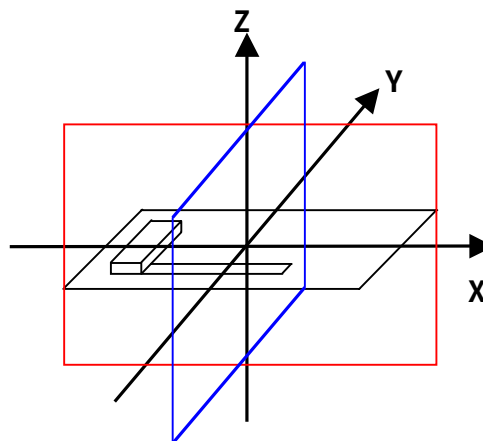
-  Front side : Without pattern and resist(film)
-  Back side : Resist without pattern
-  Both side (Front and Back) : Resist without Pattern
-  Front side : Solder resist / Back side : Resist without pattern
-  Both side(Front and Back) : Solder resist
-  Front side : Resist without pattern / Back side : Solder resist
-  Front side : Land / Back side : Resist without pattern

Multilayer Antenna Type: HAN8030B2R4GT-000 Typical Data

Radiation Pattern Plots



ITEM: Multilayer Chip Antenna for Bluetooth
Frequency: 2.45GHz
STD Antenna: Dipole Antenna (2.2-2.6GHz)



Gain / V.S.W.R.

