



Intro

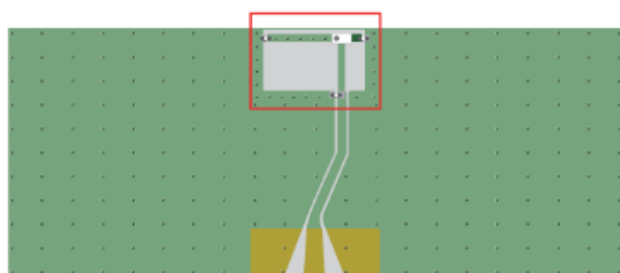
Antenna gain documentation required for all FCC Part 15 devices. Must provide either an antenna datasheet/specification or a test report with gain measurements and plots. This Information cannot be held confidential. Additionally, proprietary information of the design itself can remain confidential in either the 'operational description' or 'schematic'.

Example of antenna specification:

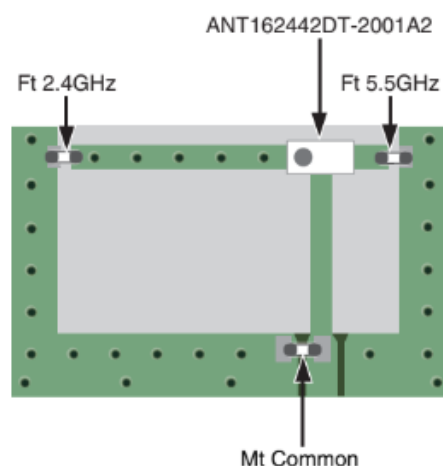
1. **Company:** Actronika SAS
2. **Product name:** Skinetic
3. **RF module/chip:** WM PAN9026
4. **Antenna description**

Antenna type	Multilayer Antenna
Antenna manufacturer	TDK
Antenna datasheet	if exist
Frequency range	2400-2484MHz / 5150-5850MHz
Modulation	DSSS/OFDM
Antenna gain max (peak)	2400-2484MHz; 2.1 dBi 5150-5850MHz; 1.5 dBi
Cable loss	NA
Connector type	NA

5. Antenna layout



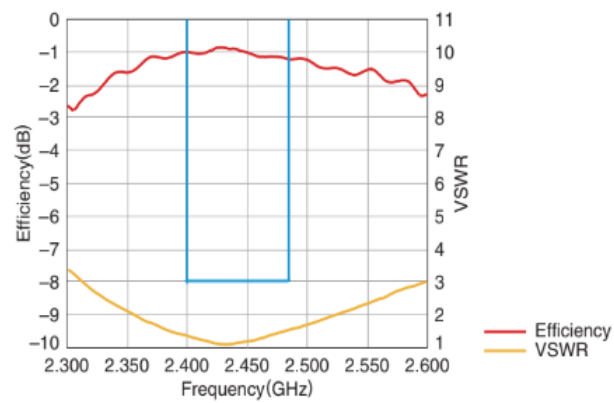
PCB size : 50mm x 20mm x 1mm
Antenna area : 8 x 5 mm



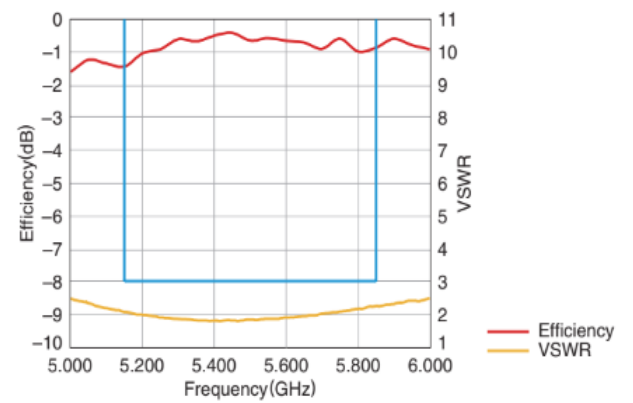
	Component P/N
Ft 2.4GHz	6.2pF
Ft 5.5GHz	0.4pF
Mt Common	1.3nH(MLG1005S1N3C:TDK)

6. Antenna VSWR

2.4GHz WLAN BAND



5.5GHz WLAN BAND

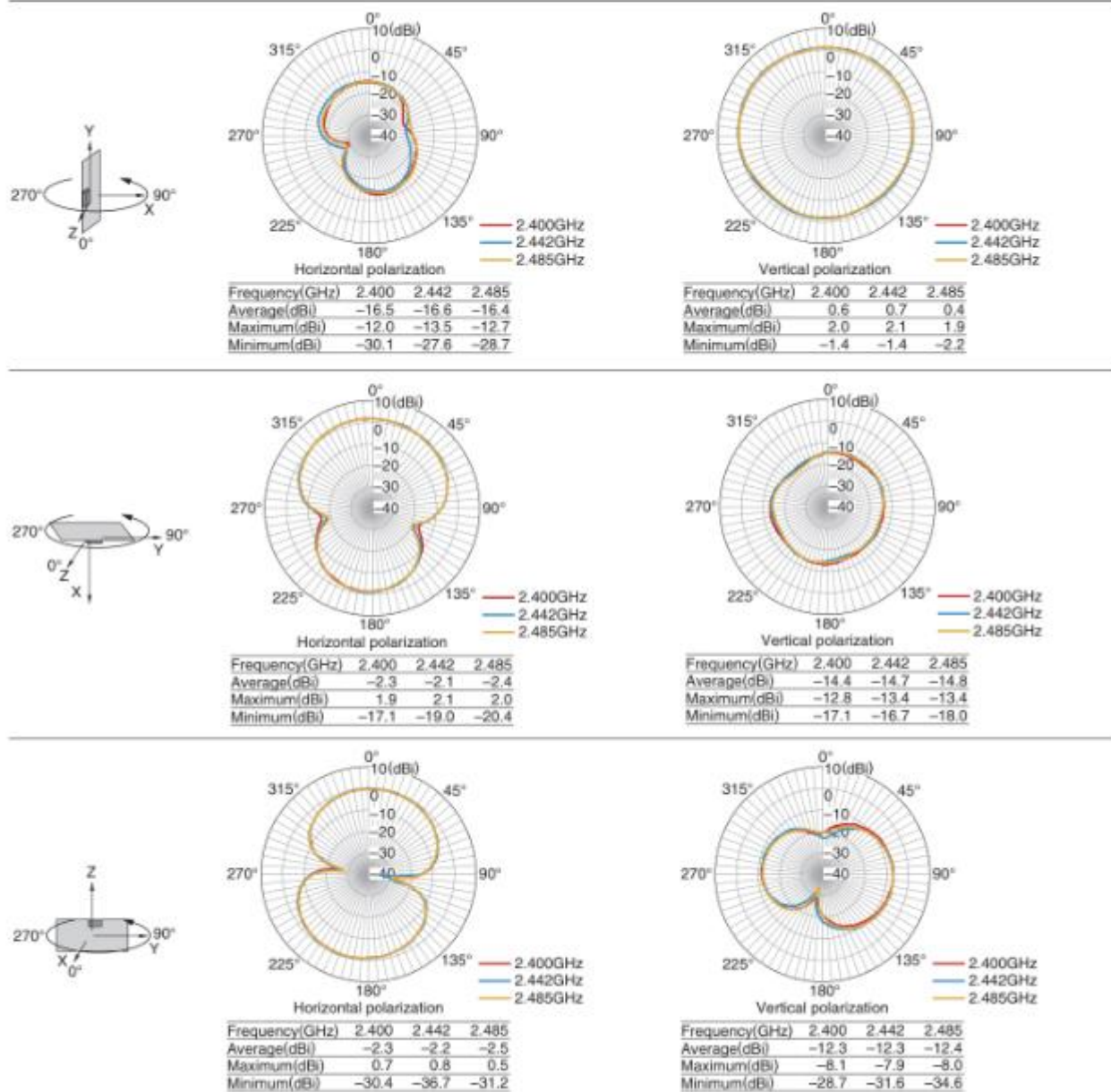


7. Antenna photo



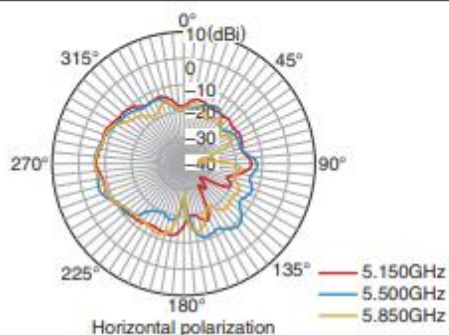
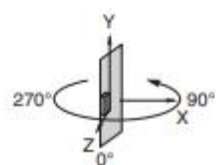
Radiation Pattern

2.4GHz ISM BAND

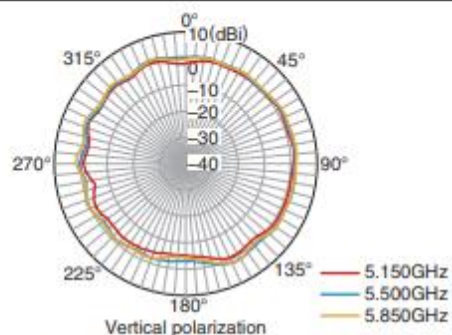


• Tested antenna has been soldered. Evaluation board size is 50x20x1 mm.

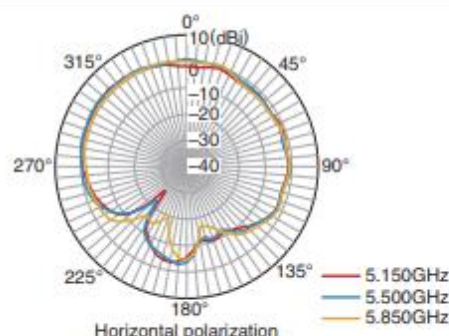
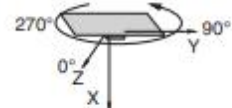
5.5GHZ BAND



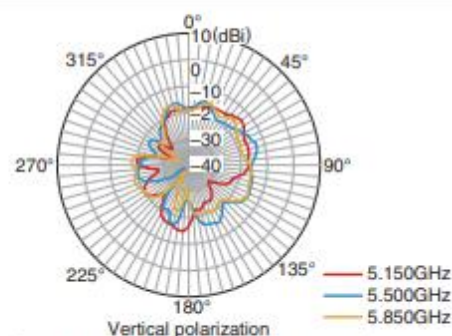
Frequency(GHz)	5.150	5.500	5.850
Average(dBi)	-13.0	-12.2	-13.6
Maximum(dBi)	-7.5	-6.6	-6.7
Minimum(dBi)	-32.5	-26.8	-36.3



Frequency(GHz)	5.150	5.500	5.850
Average(dBi)	-1.4	-0.2	-0.1
Maximum(dBi)	0.6	1.5	1.5
Minimum(dBi)	-5.5	-3.1	-4.7



Frequency(GHz)	5.150	5.500	5.850
Average(dBi)	-2.5	-2.1	-2.7
Maximum(dBi)	1.0	1.1	0.4
Minimum(dBi)	-29.0	-23.9	-19.0



Frequency(GHz)	5.150	5.500	5.850
Average(dBi)	-19.2	-18.2	-19.2
Maximum(dBi)	-13.5	-13.5	-14.9
Minimum(dBi)	-34.6	-42.6	-38.9