

CMWA6600 – Enlight Collect Gateway



2AVQ2-CMWA6600 – Antenna Information

Rev A – Release 1.1 - June 25, 2020 - LGO

CMWA6600 Enlight Collect Gateway hardware contains the following internal antennas.

Miramesh Sensor Radio:

Type: PCB integrated antenna
 Make: SKF
 Frequency: 2400-2480 MHz
 Antenna Gain: 3.4 dBi

Reference document: 7Layers - MDE_SKF_1901_OTA_02.pdf

Sensor mira radio antenna	2402 MHz	2440 MHz	2480 MHz
RMS Detector Modulated	2402 MHz	2440 MHz	2480 MHz
Antenna Port Input Power	N/T	3.6	N/T
Tot. Rad. Pwr. (dBm)	N/T	2.0	N/T
Peak EIRP (dBm)	N/T	7.0	N/T
Directivity (dBi)	N/T	5.0	N/T
Efficiency (dB)	N/T	-1.6	N/T
Efficiency (%)	N/T	70	N/T
Gain (dBi)	N/T	3.4	N/T

WiFi/BLE:

Type: Mixtus A10194 SMD
 Make: Antenova
 Frequency: 2.4 – 2.5 GHz / 4.9 – 5.9 GHz
 Antenna Gain: 1.8 dBi / 4.1 dBi

	Typical performance	Conditions
Peak gain	1.8 dBi	Data given for the 2.4 – 2.5 GHz frequency range All data measured on Antenova's reference board part number A10194-U1
Average gain	-0.5 dBi	
Average efficiency	>75%	
Maximum Return Loss	-15 dB	
Maximum VSWR	1.4:1	
Peak gain	4.1 dBi	Data given for the 4.9 – 5.9 GHz frequency range All data measured on Antenova's reference board part number A10194-U1
Average gain	-2.3 dBi	
Average efficiency	>60%	
Maximum Return Loss	-11 dB	
Maximum VSWR	1.8:1	

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Cellular:

Type: Inversa-SR4L034-R SMD

Make: Antenova

Frequency: See below

Antenna Gain: See below

Antenna used for both Main (Tx/Rx) and Diversity (Rx) antennas.

	698 - 798 MHz
Peak gain	0.40dBi
Average gain (Linear)	-2.0dBi
Average efficiency	>55%
Maximum return loss	-6.0dB
Maximum VSWR	2.8:1

	824 - 960 MHz
Peak gain	1.60dBi
Average gain (Linear)	-1.10dBi
Average efficiency	>70%
Maximum return loss	-6.6dB
Maximum VSWR	2.8:1

	1710 - 2170 MHz
Peak gain	3.50dBi
Average gain (Linear)	-2.00dBi
Average efficiency	>60%
Maximum return loss	-5.1dB
Maximum VSWR	3.5:1

	2300 - 2400 MHz
Peak gain	3.60dBi
Average gain (Linear)	-1.60dBi
Average efficiency	>60%
Maximum return loss	-7.0dB
Maximum VSWR	2.5:1

	2500 - 2690 MHz
Peak gain	2.10dBi
Average gain (Linear)	-2.30dBi
Average efficiency	>55%
Maximum return loss	-4.9dB
Maximum VSWR	3.7:1

Note:

Cellular supported in hardware but functionality not supported in gateway release 1.1 and therefore also not subject to radio approvals.