

Ecosystem Radio Test Report

v3.13



Report Date 14 June 2023

General Information

Casambi project number	COEM-AB0331
Casambi Ecosystem project manager	Rod Attenburrow
Tested by	Pekka Tallgren
Test date	13/06/2023

Sample Identification

Company	GRE Manufacturing		
Country of origin	China		
Product number/name	SLD-DIM-CB2-UL	Revision	A
Radio design (CBM, other module, chip-down)	[REDACTED]		

Radio Design Verification

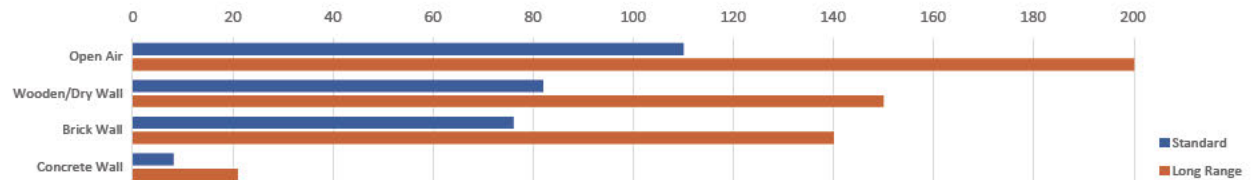
Test Result

Total Radiated Power (TRP)	1.7	dBm
Long range compatible? (Only CBM003 or nRF52840)	Y	
Design Quality Rating (1-10)	10	

Item	Details	Unit
Test transmit power	4.7	dBm
Antenna height (standard height for test measurement)	1.3	m
Antenna efficiency	-3	dBm
RX sensitivity +4dBm standard network	-95	dBm
RX sensitivity +8dBm long range network	-102	dBm
Link margin	15	dBm

Range Estimate (Estimated useful range)

Item	Standard	Long Range	Unit
Nominal Transmit power	4	8	dBm
Link budget	78.7	88.6	dB
Range in open air (LOS)	110	200	m
Range with single wooden/dry wall (5 cm) -5 dBm	82	150	m
Range with single brick wall (10 cm) -6 dBm	76	140	m
Range with single concrete wall (10 cm) -25 dBm	8.2	21.0	m



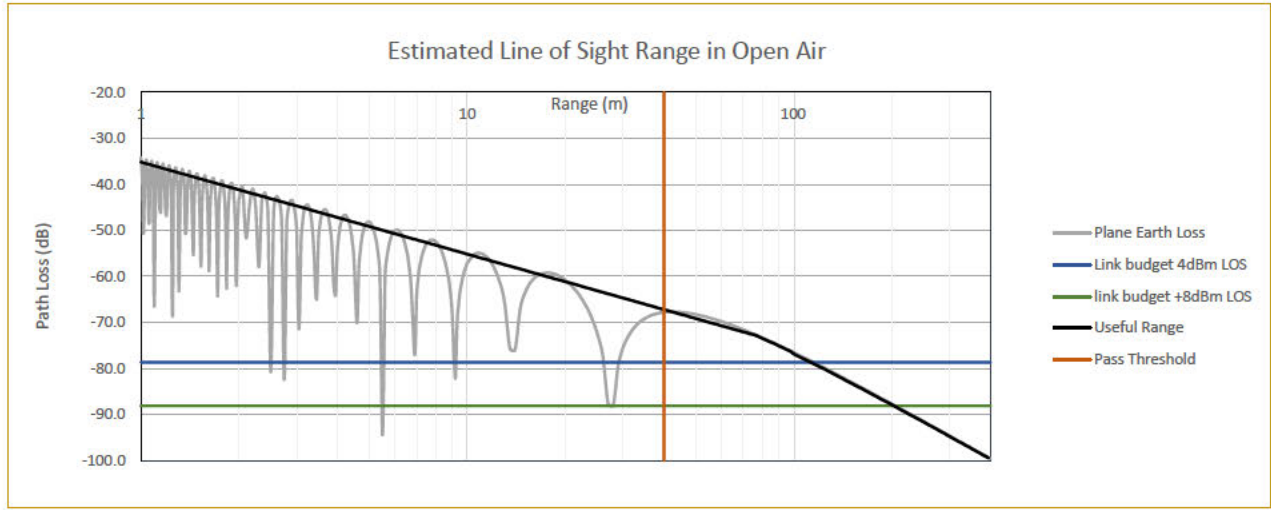
Rating

Item	Rating	Maximum
Design quality	10	10
Range	110.0	
Total rating	120.0	

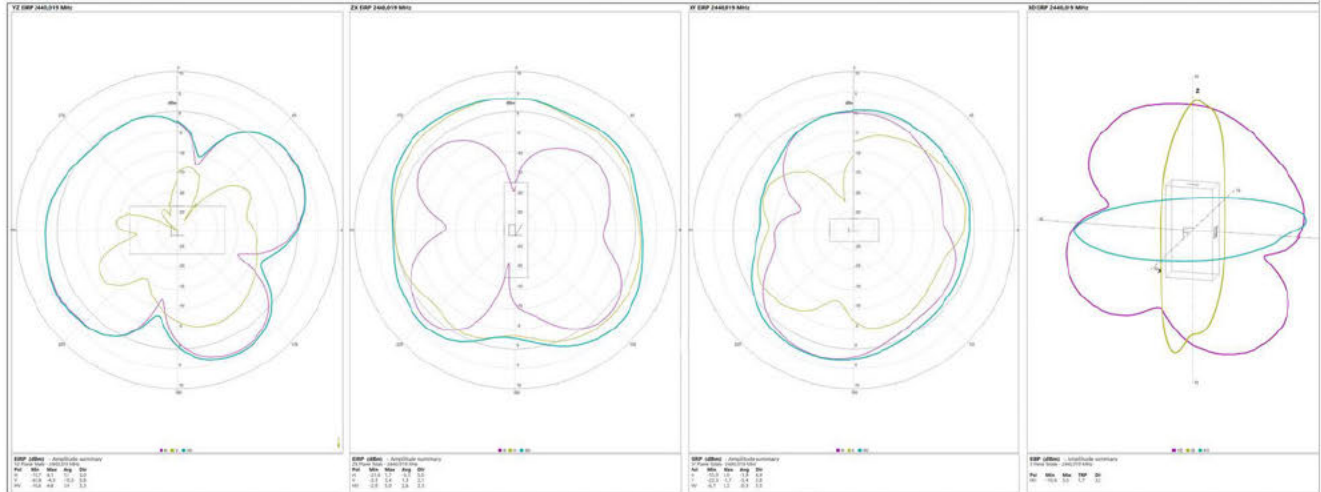
RATING:
PASS

:(fail
* Poor
*** Average
***** Excellent

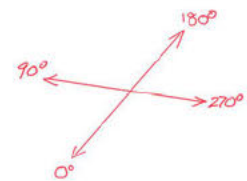
Technical Report



Radio Test Result



Orientation



Antenna Match (@ +4dBm)

Frequency GHz	TRP dBm	TRP - Good antenna dBm
2400	2.2	2
2440	2.9	2
2480	3.3	2

