



→ TECHNICAL SPECIFICATION

	Brand Model P/N	SAF FreeMile 5 GE MIMO TDD	
		FreeMile-5-GE-23 Z05FEE04	FreeMile-5-GE-N Z05FEE03
Frequency band and range		5GHz (5.180 – 5.825 GHz)	
Duplexing scheme		Time Division Duplexing (TDD)	
Channel bandwidth		20 / 40 MHz	
Modulation		BPSK / QPSK / 16QAM / 64QAM	
Capacity range		1Gigabit Ethernet	
Wireless technology		2x2 MIMO	
Operating mode		Point to point	
Max. transmit power		2 chains x 28dBm	
Configuration		1+0	
Traffic Interfaces		10/100/1000 BaseT	
RSL Threshold at BER 10 ⁻⁶		From -67 dBm up to -94 dBm	
Error correction		FEC, Selective ARQ	
ACM (Adaptive Coding & Modulation)		Hitless	
ATPC		yes	
DFS		yes	
Data encryption		Hardware based AES	

→ ANTENNA

Type	Integrated directional panel	External antenna
Polarization	Dual (Vertical & Horizontal)	
Gain V/H	23/23 dBi	
3dB Beam-width V/H	8/8 degrees	
Antenna size, mm	385 x 375 x 40	

→ PORTS

Ethernet with power over Ethernet cable	RJ-45 (data traffic, management port, power)	
Antenna connectors	integrated	2x N-Type
Port for serial connection	USB	USB

→ MANAGEMENT FEATURES

System configuration interfaces	User friendly web GUI, SSH CLI, SNMP v1/2c/3 with traps, centralized Remote Control Management System	
Management	RJ-45 (in-band, optional VLAN tag.)	
RSSI	LED on FODU, WEB management	

→ ETHERNET

Ethernet throughput	210 Mbps Tx+Rx aggregated	
Max packets per second	Up to 80 000	
Packet latency	2 ms (64 bytes packet)	

→ MECHANICAL & ELECTRICAL & ENVIROMENTAL

Temperature range	-33°C to +55°C	
Ingress protection	IP67	
Pole size diameter, min - max	30mm – 132mm	
Max mounted dimensions: HxWxD,	470 x 320 x 390 mm	362 x 287 x 249 mm
Weight, kg	3 kg	2.3 kg
Surge Arrestor	Built-in surge arrestor for Power and Data lines	
Input DC voltage	PoE 40 – 60 V DC (802.3af compatible)	
Power consumption	10W	

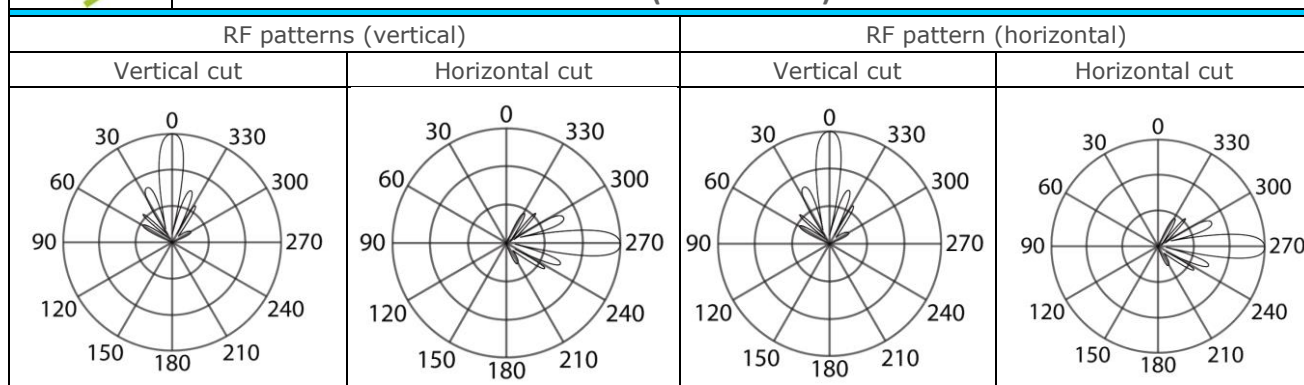


➔ **RSL AT 10⁻⁶ BER (dBm), AGGREGATED THROUGHPUT (Mbps) AND Tx POWER (dBm)**

		MIMO 2x2						Tx power dBm
		Channel bandwidth (MHz)						
		20			40			
Modulation	Coding Rate	RSL dBm	Data rate Mbps	Throughput Mbps	RSL dBm	Data rate Mbps	Throughput Mbps	
BPSK	1/2	-92	14	8	-87	30	26	28
QPSK	1/2	-89	29	16	-86	60	52	
	3/4	-86	43	26	-82	90	76	
16QAM	1/2	-83	57	40	-78	120	104	23
	3/4	-80	86	72	-75	180	152	
64QAM	2/3	-76	115	100	-72	240	190	21
	3/4	-74	130	112	-69	270	206	
64QAM	5/6	-73	144	118	-67	300	210	20

		SISO						Tx power dBm
		Channel bandwidth (MHz)						
		20			40			
Modulation	Coding Rate	RSL dBm	Data rate Mbps	Throughput Mbps	RSL dBm	Data rate Mbps	Throughput Mbps	
BPSK	1/2	-92	7	2	-94	15	14	28
QPSK	1/2	-91	14	4	-91	30	24	
	3/4	-89	21	10	-89	45	34	
16QAM	1/2	-86	28	14	-86	60	50	23
	3/4	-83	43	22	-82	90	76	
64QAM	2/3	-81	57	30	-78	120	104	21
	3/4	-76	65	40	-74	135	114	
64QAM	5/6	-75	72	52	-69	150	130	20

➔ **INTEGRATED ANTENNA PATTERNS (for Z05FEE01)**



! To specify if 5.8GHz are available frequency bands in your country, please contact the local spectrum regulating authority or SAF sales representative at sales@saftehnika.com



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