



Weight: 800gr

Electrical Characteristics

Parameters	Minimum	Typical	Maximum	Unit
Operation voltage	7.5	12	-	V
Operation current (12V)	0.1	0.52	1,2	A
Power consumption	1.0	6	14	W
Operation temperature	0	-	40	°C

Optical Characteristics

Parameters	Minimum	Typical	Maximum	Unit
Led Diameter	-	5	-	mm
Pixel Gap	2.4	2.5	2.6	mm
Wavelength (Red Led)	-	625	-	nm
Luminous Intensity (Red Led)	-	600	-	mcd
Wavelength (Blue Led)	-	468	-	nm
Luminous Intensity (Blue Led)	-	300	-	mcd
Wavelength (White Led)	380	-	680	nm
Luminous Intensity (White Led)	-	2200	-	mcd
Color Temperature (White Led)	5000	-	6000	K

Communication

Parameters	Minimum	Typical	Maximum	Unit
WiFi Communication Range	-	100	300	m
EIA485 Communication Range	-	-	1200	m

RF Power Consumption

Parameters	Minimum	Typical	Maximum	Unit
TX 802.11b, CCK 11Mbps, POUT=+17 dBm	-	170	-	mA
TX 802.11g, OFDM 54Mbps, POUT=+15 dBm	-	140	-	mA
TX 802.11n, MCS7, POUT=+13dBm	-	120	-	mA
Rx 802.11b, 1024 bytes packet length, -80 dBm	-	50	-	mA
Rx 802.11g, 1024 bytes packet length, -70 dBm	-	56	-	mA
Rx 802.11n, 1024 bytes packet length, -65 dBm	-	56	-	mA

WiFi Radio Channel Frequencies

The RF transceiver supports the following channels according to IEEE802.11b/g/n standards

Channel	Minimum	Typical	Maximum	Unit
Channel 1	-	2412	-	Mhz
Channel 2	-	2417	-	Mhz
Channel 3	-	2422	-	Mhz
Channel 4	-	2427	-	Mhz
Channel 5	-	2432	-	Mhz
Channel 6	-	2437	-	Mhz
Channel 7	-	2442	-	Mhz
Channel 8	-	2447	-	Mhz
Channel 9	-	2452	-	Mhz
Channel 10	-	2457	-	Mhz
Channel 11	-	2462	-	Mhz
Channel 12	-	2467	-	Mhz
Channel 13	-	2472	-	Mhz
Channel 14	-	2484	-	Mhz

WiFi Radio Characteristics

The following data are from tests conducted at room temperature.

Parameters	Minimum	Typical	Maximum	Unit
Input frequency	2412	-	2484	Mhz
Output impedance	-	39+j6	-	Ω
Output power of PA for 72.2 Mbps	15.5	16.5	17.5	dBm
Output power of PA for 11b mode	19.5	20.5	21.5	dBm
Sensitivity	Minimum	Typical	Maximum	Unit
DSSS, 1Mbps	-	-98	-	dBm
CCK, 11Mbps	-	-91	-	dBm
6 Mbps (1/2 BPSK)	-	-93	-	dBm
54 Mbps (3/4 64-QAM)	-	-75	-	dBm
HT20, MCS7 (65 Mbps, 72.2 Mbps)	-	-72	-	dBm
Adjacent Channel Rejection	Minimum	Typical	Maximum	Unit
OFDM, 6Mbps	-	37	-	dB
OFDM, 54Mbps	-	21	-	dB
HT20, MCS0	-	37	-	dB
HT20, MCS7	-	20	-	dB