



PCIe MINI CARD

YBTE5N9280-26

2 x 2 802.11N Single-band MIMO mini-PCIe

Features

- Atheros XSPAN family chipset
- 5GHz IEEE 802.11n compliant and backward compatible with 802.11a
- 5GHz Single-band MIMO 2x2 spatial multiplexing technique
- Maximum 23dBm output (per chain)/26dBm aggregate
- Built-in ESD Protection with ESD/EMP Immunity Threshold: 15KeV^①
- Supports up to 300Mbps physical data rates
- Delivers 10 times the throughput and nearly twice the range of legacy 802.11a network
- Transmission Power Control (IEEE 802.11h TPC)
- Dynamic Frequency Selection (DFS)
- Multi-Country Roaming Supported (IEEE802.11d Global Harmonization Standard)
- 2 x MMCX or 2 x U.FL Antenna Connectors^②

Technical Specifications										
Chipset	Atheros AR9280									
Host Interface	PCI –Express 1.1 Standard									
Operating Voltage	3.3 VDC									
Power Consumption	11a Cont. Tx @6M									
	11na Cont. Tx@HT20 MCS0									
	11na Cont. Tx@HT40 MCS0									
	11a Cont. Rx									
	Standby									
Antenna Connector	2 x MMCX or 2 x U.FL ^②									
Data Rate	IEEE 802.11a :	54Mbps	48Mbps	36Mbps	24Mbps	18Mbps	12Mbps	9Mbps	6Mbps	
	IEEE 802.11n :	20MHz	1Nss: 65Mbps @ 800GI, 72.2Mbps @ 400GI (Max.) 2Nss: 130Mbps @ 800GI, 144.4Mbps @ 400GI (Max.)							
		40MHz	1Nss: 135Mbps @ 800GI, 150Mbps @ 400GI (Max.) 2Nss: 270Mbps @ 800GI, 300Mbps @ 400GI (Max.)							
	Frequency Range	IEEE 802.11a/n:	5.150 ~ 5.350 GHz, 5.470 ~ 5.725GHz, 5.725 ~ 5.850 GHz (US & Canada) 5.150 ~ 5.350 GHz, 5.470 ~ 5.725GHz, 5.725 ~ 5.875 GHz (Europe) 5.150 ~ 5.250 GHz, 5.250 ~ 5.350GHz, 5.470 ~ 5.725GHz (Japan)							
Modulation Techniques	OFDM: BPSK, QPSK, 16QAM, 64QAM									
RoHS Compliance	Yes									
Temperature Range	Operating: -20°C to 70°C Storage: -40°C to 90°C									
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max. 90% (non-condensing)									
Dimension	59.6mm x 51.5mm x 6mm									

YBTE5N9280-26 ESD MIMO MINIPCI CARD RADIO										
TX SPECIFICATIONS										
		DataRate	TX Power				Tolerance			
802.11a	6-24Mbps		23dBm				±2dB			
	36Mbps		21dBm				±2dB			
	48Mbps		20dBm				±2dB			
	54Mbps		19dBm				±2dB			
	DataRate	TX Power (per chain)	Tolerance		DataRate	TX Power (per chain)	Tolerance			
5GHz 11n HT 20	MCS 0/8	23dBm	±2dB	5GHz 11n HT 40	MCS 0/8	21.5dBm	±2dB			
	MCS 1/9	22dBm	±2dB		MCS 1/9	21dBm	±2dB			
	MCS 2/10	21dBm	±2dB		MCS 2/10	20dBm	±2dB			
	MCS 3/11	20dBm	±2dB		MCS 3/11	19dBm	±2dB			
	MCS 4/12	19dBm	±2dB		MCS 4/12	18dBm	±2dB			
	MCS 5/13	18dBm	±2dB		MCS 5/13	17dBm	±2dB			
	MCS 6/14	17dBm	±2dB		MCS 6/14	16dBm	±2dB			
	MCS 7/15	14dBm	±2dB		MCS 7/15	13dBm	±2dB			
RX SPECIFICATIONS										
	Data Rate	Sensitivity (2 chains)	Tolerance		Data Rate	Sensitivity (2 chains)	Tolerance			
802.11a	6M	-96dBm	±2dB	802.11a	24M	-90dBm	±2dB			
	9M	-96dBm	±2dB		36M	-87dBm	±2dB			
	12M	-95dBm	±2dB		48M	-83dBm	±2dB			
	18M	-93dBm	±2dB		54M	-80dBm	±2dB			
5GHz 11n HT 20	MCS0	-96dBm	±2dB	5GHz 11n HT 40	MCS0	-92dBm	±2dB			
	MCS1	-94dBm	±2dB		MCS1	-90dBm	±2dB			
	MCS2	-92dBm	±2dB		MCS2	-87dBm	±2dB			
	MCS3	-87dBm	±2dB		MCS3	-84dBm	±2dB			
	MCS4	-84dBm	±2dB		MCS4	-82dBm	±2dB			
	MCS5	-80dBm	±2dB		MCS5	-78dBm	±2dB			
	MCS6	-79dBm	±2dB		MCS6	-76dBm	±2dB			
	MCS7	-77dBm	±2dB		MCS7	-74dBm	±2dB			