

**Dbii Networks F52N-PRO** is a high powered 802.11 a/b/g/n and 4.9GHz integrated Lightning & ESD\* protected band device with robust surge protection capabilities built-in by default. It employs our patent pending architecture that integrates the protection for the Radio Frequency (RF) antenna port. Power over Ethernet (POE) port can also be protected with the SafeSurge add-on. Output power and best in class receive sensitivity and gain are designed with long distance outdoor wireless networks in mind. The card is also FCC approved for both in the 4.9GHz public safety band and use in 2.4GHz/5GHz band.

*\*Lightning or Surge protection is different than ESD. Other manufacturers might claim both, but they only have ESD protection. Our PRO cards have both built-in*

## RF Port "Lightning" Protection (Built-in)

ESD Handling	Over 14kV*
Surge Handling	8/20uS (10kA)*

\*The miniPCI card should be properly grounded with the supplied cable to achieve this level of protection.

## Transmitter Characteristics (Tx)

Data Rate	MCS0	MCS3	MCS7	MCS15
802.11 a/n	28 dBm	25 dBm	20 dBm	20 dBm
802.11 g/n	28 dBm	28 dBm	22 dBm	22 dBm

## Receiver Characteristics (Rx)

Data Rate	MCS0	MCS3	MCS7	MCS15
802.11 a/n	-96 dBm	-91 dBm	-77 dBm	-77 dBm
802.11 g/n	-98 dBm	-92 dBm	-76 dBm	-76 dBm

## Miscellaneous

RF connector	2 MMCX for MIMO
Dimensions	6 cm X 5.4 cm x 0.73 cm
Operating Frequencies	2.3-2.5GHz b/g/n, 4.9-6GHz a/n
Operational Temperature	-40C to +70C
Power consumption	7.5 Watts (Peak)
Humidity	0% to 95% (non-condensing)
MAC chipset Atheros	AR9220
OS Compatibility	Mikrotik, Peplink, Ikarus, Willibox
Bandwidth control	5/10/20/40 MHz
Included Accessories	15cm ground wire, 1 screw
Power Offset	5 dBm
Warranty	Lifetime Limited Warranty

\*FCC & CE approved, FCC IDs: VKV-F52N



## Key Features

- Integrated ESD (14kV) + Lightning Surge Protection (10kA)
- Industrial grade reliability
- RF output power up to 28 dBm
- Highest and most consistent data throughput
- Best CCQ performance in it's class

# Technical Specifications/Datasheet

## F52N-PRO - 2.4/4.9/5GHz Hi Powered 2x2 MIMO

802.11a			
DataRate	Tx	Rx	Tolerance
6Mbps	28dBm	-97dBm	+/-1.5dB
9Mbps	28dBm	-97dBm	+/-1.5dB
12Mbps	28dBm	-97dBm	+/-1.5dB
18Mbps	28dBm	-97dBm	+/-1.5dB
24Mbps	25dBm	-97dBm	+/-1.5dB
36Mbps	26dBm	-87dBm	+/-1.5dB
48Mbps	23dBm	-83dBm	+/-1.5dB
54Mbps	22dBm	-81dBm	+/-1.5dB

802.11b/g			
DataRate	Tx	Rx	Tolerance
6Mbps	28dBm	-98dBm	+/-1.5dB
9Mbps	28dBm	-97dBm	+/-1.5dB
12Mbps	28dBm	-94dBm	+/-1.5dB
18Mbps	28dBm	-92dBm	+/-1.5dB
24Mbps	28dBm	-88dBm	+/-1.5dB
36Mbps	26dBm	-85dBm	+/-1.5dB
48Mbps	23dBm	-79dBm	+/-1.5dB
54Mbps	22dBm	-76dBm	+/-1.5dB

802.11 a/n			
DataRate	Tx	Rx	Tolerance
MCS0	28dBm	-96dBm	+/-1.5dB
MCS1	27dBm	-96dBm	+/-1.5dB
MCS2	26dBm	-93dBm	+/-1.5dB
MCS3	25dBm	-91dBm	+/-1.5dB
MCS4	23dBm	-87dBm	+/-1.5dB
MCS5	23dBm	-84dBm	+/-1.5dB
MCS6	22dBm	-80dBm	+/-1.5dB
MCS7	20dBm	-77dBm	+/-1.5dB
MCS8	28dBm	-96dBm	+/-1.5dB
MCS9	27dBm	-96dBm	+/-1.5dB
MCS10	26dBm	-93dBm	+/-1.5dB
MCS11	25dBm	-91dBm	+/-1.5dB
MCS12	23dBm	-87dBm	+/-1.5dB
MCS13	23dBm	-84dBm	+/-1.5dB
MCS14	22dBm	-80dBm	+/-1.5dB
MCS15	20dBm	-77dBm	+/-1.5dB

802.11 g/n																																			
DataRate	Tx	Rx	Tolerance																																
MCS0	28dBm	-98dBm	+/-1.5dB																																
MCS1	28dBm	-97dBm	+/-1.5dB																																
MCS2	28dBm	-94dBm	+/-1.5dB																																
MCS3	28dBm	-92dBm	+/-1.5dB																																
MCS4	27dBm	-88dBm	+/-1.5dB																																
MCS5	23dBm	-85dBm	+/-1.5dB																																
MCS6	22dBm	-79dBm	+/-1.5dB																																
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