2.4 GHz Sectorized Omnidirectional Array Tri-Antenna Array

(17 dBi Version Shown)

Applications and Features

Applications:

- 2.4 GHz ISM Band
- IEEE 802.11b and 802.11g Wireless LAN
- Point to Multi-Point Systems
- Wireless Broadband Systems

Features:

- Tri-Antenna Array
- High performance sectorial antennas
- 360° coverage
- 0-20° mechanical up/down tilt
- Available in single fed or individual fed models
- Single fed models feature 3-Way signal splitter and jumper cables
- DC ground lightning protection
- Can be mounted to round or square masts
- Stainless steel construction for all-weather operation
- Vertical polarization
- Available in 14 dBi*, 17 dBi* and 20 dBi* versions

Models

Single Fed Models (1 Input into 3 Antennas)				
Frequency	**Gain**	**Splitter Connectors**	**Includes**	**Part Number**
2.4 GHz	14 dBi*	N-Female 	(3) 120° Sector Antennas (1) 3-Way Signal Splitter w/N-Female Connectors (3) 2 ft. WBC400 Jumper Cables - N-Male to N-Male (1) Array Mounting System	**HK2414-120NF**
		RP-TNC Jack 	(3) 120° Sector Antennas (1) 3-Way Signal Splitter w/RP-TNC Jack Connectors (3) 2 ft. WBC400 Jumper Cables - N-Male to RP-TNC Plug (1) Array Mounting System	**HK2414-120RT**
2.4 GHz	17 dBi*	N-Female 	(3) 120° Sector Antennas (1) 3-Way Signal Splitter w/N-Female Connectors (3) 2 ft. WBC400 Jumper Cables - N-Male to N-Male (1) Array Mounting System	**HK2417-120NF**
		RP-TNC Jack 	(3) 120° Sector Antennas (1) 3-Way Signal Splitter w/RP-TNC Jack Connectors (3) 2 ft. WBC400 Jumper Cables - N-Male to RP-TNC Plug (1) Array Mounting System	**HK2417-120RT**
2.4 GHz	20 dBi*	N-Female 	(3) 120° Sector Antennas (1) 3-Way Signal Splitter w/N-Female Connectors (3) 2 ft. WBC400 Jumper Cables - N-Male to N-Male (1) Array Mounting System	**HK2420-120NF**
		RP-TNC Jack 	(3) 120° Sector Antennas (1) 3-Way Signal Splitter w/RP-TNC Jack Connectors (3) 2 ft. WBC400 Jumper Cables - N-Male to RP-TNC Plug (1) Array Mounting System	**HK2420-120RT**

Individual Fed Models (3 Inputs into 3 Antennas)				
Frequency	**Gain**	**Antenna Connectors**	**Includes**	**Part Number**
2.4 GHz	14 dBi*	N-Female 	(3) 120° Sector Antennas (1) Array Mounting System	**HK2414-120**
2.4 GHz	17 dBi*	N-Female 	(3) 120° Sector Antennas (1) Array Mounting System	**HK2417-120**
2.4 GHz	20 dBi*	N-Female 	(3) 120° Sector Antennas (1) Array Mounting System	**HK2420-120**

Description

Superior Performance

The HyperGain® Sectorized Omni Array features our high performance 2.4 GHz 90° sectorial antennas. Each of the four antennas in this array can be adjusted individually (0-20° up or down tilt) to compensate for the geography of the installation location. This helps ensure maximum coverage of the array for service providers in the 2.4 GHz ISM band.

Flexibility of Single or Individual Feeds

Ideal for smaller applications, the sectorized omni array is available as a single fed system (1 input into 3 antennas). Since each antenna is fed from a 3-Way signal splitter, only a single radio/amplifier is required. As the system grows, additional capacity can be added by simple adding more base station radios and bypassing the splitter's array, thus feeding each antenna from a separate radio. Single fed models feature an industrial grade 3-Way signal splitter (with N-Female or RP-TNC Jack connectors) and three 2 ft. (0.6m) WBC400 jumper cables.

(Signal Splitter Detail)

For higher system capacities, the array can be purchased as an individual fed system (each antenna fed individually). The advantages of this type of system include higher gain than the single fed systems and better isolation of each of the three antennas. Interference from adjoining antennas is reduced thus improving performance.

The sectorized omni arrays are designed for all-weather operation. They feature heavy-duty plastic antenna radomes and stainless steel mounting systems. The array can be mounted directly onto masts 1¼" to 2" (31.7 to 50.8mm) in dia using the provided U-Bolts or bolted directly to square masts/beams up to 3¼" (82.5mm) square. The mounting bracket can also accept 3" (76.2 mm) U-Bolts (not included) for larger masts.

Additional Product Photos

14 dBi* Array

17 dBi* Array

17 dBi* Array shown in down-tilt configuration

20 dBi* Array

Specifications

Models	**HK2414-120**	**HK2417-120**	**HK2420-120**
Frequency	2400 - 2500 MHz		
Antenna Gain	14 dBi*	17 dBi*	20 dBi*
Polarization	Vertical		
Horizontal Beam Width (Individual antenna)	120°	120°	120°
Vertical Beam Width (Individual antenna)	15°	6.5°	6.5°
Lightning Protection	DC Ground		
Power Rating (Single Fed)	25 Watts		
Antenna Radome Material	UV-inhibited Plastic		
Mounting System Material	Stainless Steel		
Mounting (Round Mast)	1¼" to 2" (31.7 to 50.8 mm) dia.		
Mounting (Square Mast/Beam)	3¼" (82.5 mm) square max.		
Dimensions **(O.D. Panels Fully Retracted)	20" (508 mm) x 17" (432 mm) O.D.**	39" (990 mm) x 17" (432 mm) O.D.**	39" (990 mm) x 17" (432 mm) O.D.**
Weight	14 lbs. (6.3 kg)		

* Antenna gains specified when sectors are individually fed.

RF Antenna Gain Patterns