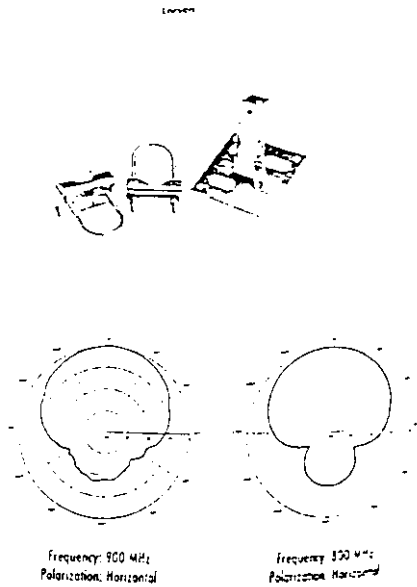
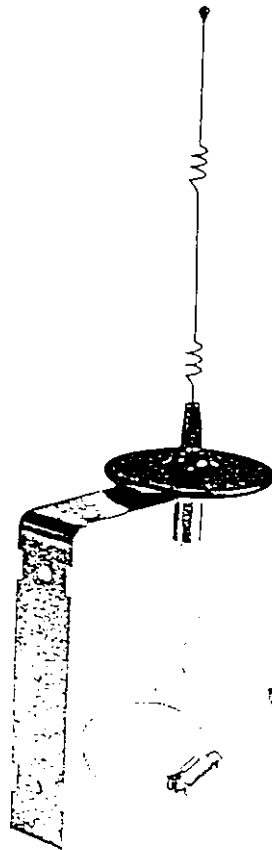
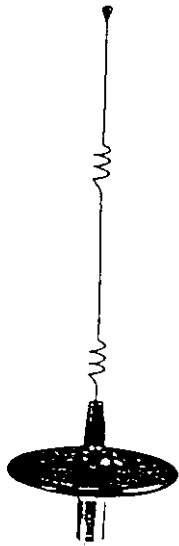


Base Station Antennas



MODEL	FREQUENCY
FB42400WA	2400-2485 MHz
SPECIFICATIONS	
GAIN	5dB
TYPE	5/8 over 5/8 over 1/4 wave
VSWR	1.5:1 or less
COLOR	Black
WHIP	.070, twin open coil
POWER RATING	100 watts
DIMENSION	8" H
FEED CONNECTION	N FEMALE
WINDLOAD	100 mph

MODEL	FREQUENCY
FB42400	2400-2485 MHz 5' ARM MT BRKT INCL
SPECIFICATIONS	
GAIN	5dB
TYPE	5/8 over 5/8 over 1/4 wave
VSWR	1.5:1 or less
COLOR	Black
WHIP	.070, twin open coil
POWER RATING	100 watts
FEED CONNECTION	N FEMALE
WINDLOAD	100 mph

MODEL	FREQUENCY	CONNECTOR
PA18806N	806-866 MHz	N CONN
PA18824N	824-896 MHz	N CONN
PA18902N	890-960 MHz	N CONN
SPECIFICATIONS		
TYPE	Single element panel	
GAIN	8dB	
VSWR	1.5:1 or less Tx	
H PLANE	60 min.	
E PLANE	60 min.	
IMPEDANCE	50 ohms	
POLARIZATION	Vertical	
FRONT TO BACK RATIO	20dB nominal	
AMBIENT TEMP	-40 to 120°F	
LIFE EXPECTANCY	20 years	
DIMENSION	9.4L/5.75"W/1.10"H	

Economy Data Transmission Omnidirectional Antennas

These economy models of the above antennas are built without the extensive decoupling circuits found in the standard models. For some applications this can enhance performance. In others it has little effect on actual performance.

Economy Omnis are housed in long-life ultraviolet-stabilized polycarbonate radomes. They may be used indoors or out without regard to the environment. Their radiation patterns have a tendency to fill the available space. There are a variety of mounting options from suspension ceiling clamps to pole mounts.

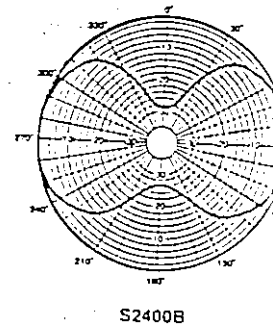
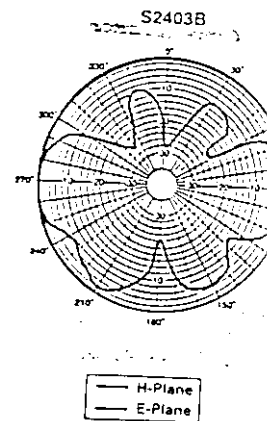


Omnidirectional antenna designs are also available for any frequency between 25 MHz and 6 GHz. Please call our sales engineers for full information.

ECONOMY DATA TRANSMISSION OMNIS

- Polycarbonate enclosures
- Available with ceiling mounts
- Plated copper laminated radiator
- Weatherproof designs with UltraLink pigtail
- Broadband performance
- DC grounded
- Omnidirectional performance

Model	Spread Spectrum	SCADA
S8960BE	Yes	Yes
S8963BE	Yes	No
S2400BE	Yes	NA
S2403BE	Yes	NA

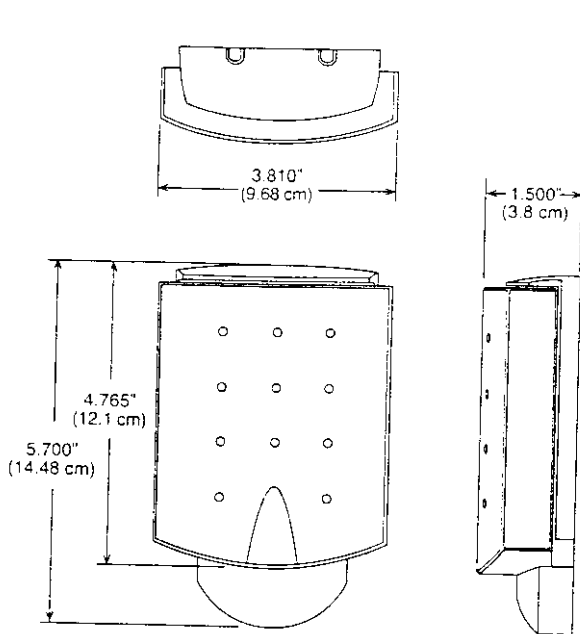


DATA OMNI SELECTOR CHART

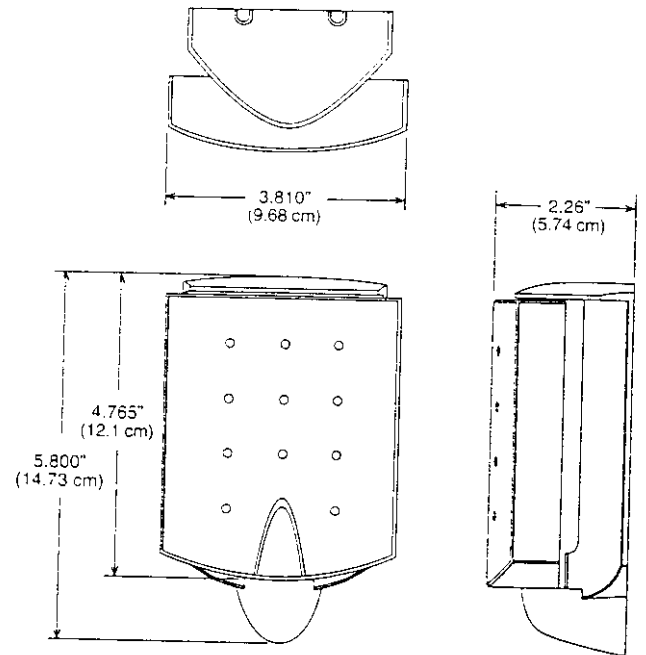
Model	Freq. MHz	Gain dBd	Bandwidth 1.5:1 MHz	-3dB bandwidth E-Plane ^a	Height in (cm)	Weight lb (kg)	W/sur Area ft ² (m ²)	W/survival mph (kph)	Power (Watts)	Enclosure Material	Mount Style	Mast Dia in (cm)
S8960B	896-960	0	64	75	17-1/2 (44.5)	0.56 (0.25)	0.083 (0.009)	125 (200)	150	Fiberglass	Tube end	2 (5.1)
S8960BE	896-960	0	64	75	9 (22.9)	0.36 (0.16)	0.122 (0.011)	125 (200)	150	Polycarbonate	Ceiling	N/A
S8963B	896-960	3	64	38	30-3/4 (78)	1.19 (0.53)	0.176 (0.015)	125 (200)	150	Fiberglass	Tube end	2 (5.1)
S8963BE	896-960	3	64	38	17 (43.2)	0.41 (0.18)	0.24 (0.022)	125 (200)	150	Polycarbonate	Ceiling	N/A
S8964B	896-960	4	64	30	42-1/8 (107)	1.53 (0.70)	0.22 (0.02)	125 (200)	150	Fiberglass	Tube end	2 (5.1)
S1403B	1410-1455	3	45	38	30 (76.2)	0.58 (0.26)	0.43 (0.04)	125 (200)	75	Polycarbonate	Tube end	2 (5.1)
S1405B	1410-1455	6	45	20	17-1/2 (44.5)	0.34 (0.15)	0.25 (0.023)	125 (200)	75	Polycarbonate	Tube end	2 (5.1)
S1804B	1850-1970	0	120	38	20-1/2 (52.1)	0.40 (0.17)	0.25 (0.024)	125 (200)	50	Polycarbonate	Tube end	2 (5.1)
S1806B	1850-1970	3	120	20	25-1/2 (67.3)	0.51 (0.23)	0.38 (0.035)	125 (200)	50	Polycarbonate	Tube end	2 (5.1)
S2400B	2400-2500	0	100	75	8 (20.3)	0.25 (0.11)	.11 (0.010)	125 (200)	50	Polycarbonate	Tube end	2 (5.1)
S2400BE	2400-2500	0	100	75	9 (22.9)	0.29 (0.54)	0.122 (0.011)	125 (200)	50	Polycarbonate	Ceiling	N/A
S2403B	2400-2500	3	100	38	13-1/2 (34.3)	0.41 (0.18)	0.22 (0.02)	125 (200)	50	Polycarbonate	Tube end	2 (5.1)
S2403BE	2400-2500	3	100	38	9 (22.9)	0.31 (0.14)	0.122 (0.011)	125 (200)	50	Polycarbonate	Ceiling	2 (5.1)

Common Specifications: VSWR - 1.2; nominal; Connector Type - N-female; Element material - printed circuit

DirectLink Series Antennas



STANDARD WALL MOUNT



**ARTICULATING MOUNT
(±30 degrees)**

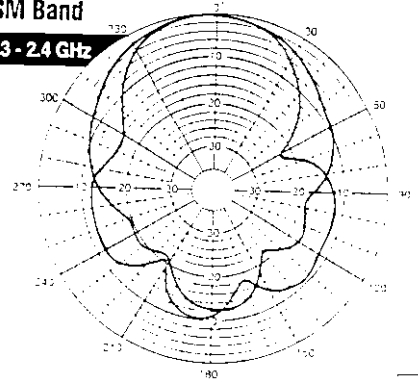
FREQUENCY MHz	MODEL	GAIN dBi	3dB Bmwidth, deg.		VSWR	F/B dB	Connector (female)	Articulating Version
			E-Plane	H-Plane				
1710-1880	S1718AMP10SMF	7.5	60	85	1.5:1	12	SMA	Yes
1710-1880	S1718MP10SMF	7.5	60	85	1.5:1	12	SMA	No
1710-1880	S1718AMP10TNF	7.5	60	85	1.5:1	12	TNC	Yes
1710-1880	S1718MP10TNF	7.5	60	85	1.5:1	12	TNC	No
1850-1990	S1857AMP10SMF	7.5	55	80	1.5:1	12	SMA	Yes
1850-1990	S1857MP10SMF	7.5	55	80	1.5:1	12	SMA	No
1850-1990	S1857AMP10TNF	7.5	55	80	1.5:1	12	TNC	Yes
1850-1990	S1857MP10TNF	7.5	55	80	1.5:1	12	TNC	No
2300-2500	S2307AMP10SMF	7.5	50	65	1.5:1	12	SMA	Yes
2300-2500	S2307MP10SMF	7.5	50	65	1.5:1	12	SMA	No
2300-2500	S2307AMP10TNF	7.5	50	65	1.5:1	12	TNC	Yes
2300-2500	S2307AM10TNF	7.5	50	65	1.5:1	12	TNC	No
5150-5350	S5150	12	35	60	1.5:1	12		Yes
5725-5825	S5725	12	35	60	1.5:1	12		Yes

Specifications subject to change without notice.

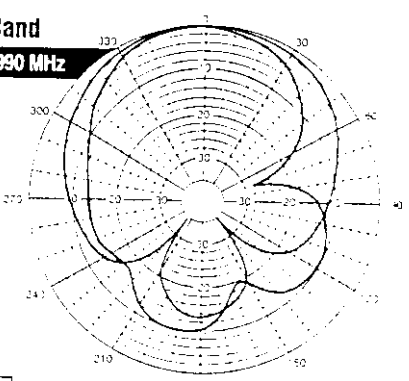
Power Handling: 50 Watts (25 Watts at 5 GHz)
Polarization: Linear
Dimensions & Weight:
 Articulating versions - 5.80 x 3.81 x 2.26 in. (14.73 x 9.68 x 5.74 cm), 8 oz (.23 kg)
 Non-Articulating versions - 5.70 x 3.81 x 1.50 in. (14.48 x 9.68 x 3.80 cm), 5 oz (.14 kg)
Connectors: SMA, TNC. Other connector types available on special request.
Mounting: Standard units for wall mounted. Mast mount kits available. Custom mount configurations available for volume users.
Cable: Low loss "pigtail" provided

Product also available in private labeled versions for volume users.
Notes: Specifications for 5 GHz versions are preliminary. First availability second half 1997.

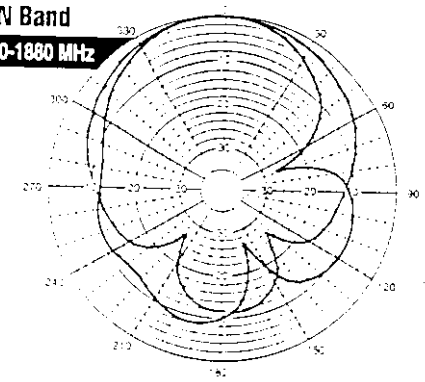
**ISM Band
2.3 - 2.4 GHz**



**PCS Band
1850-1990 MHz**



**PCN Band
1710-1880 MHz**



— E-Plane
 — H-Plane

NCC TECHNICAL DATA BULLETIN

MODEL N2400SM8

2.4 GHz current fed halfwave, molded in vinyl
and with reverse SMA connector

SPECIFICATIONS

Frequency - 2.4 GHz - 2.5 GHz
Bandwidth - 75 MHz <1.5:1
VSWR - <1.5:1
Impedance - Nominally 50 Ohms
Polarity - Vertical
Gain - 2 dBi

Connector - R SMA
Length - Nominally 3 inches
Material - Flexible Vinyl

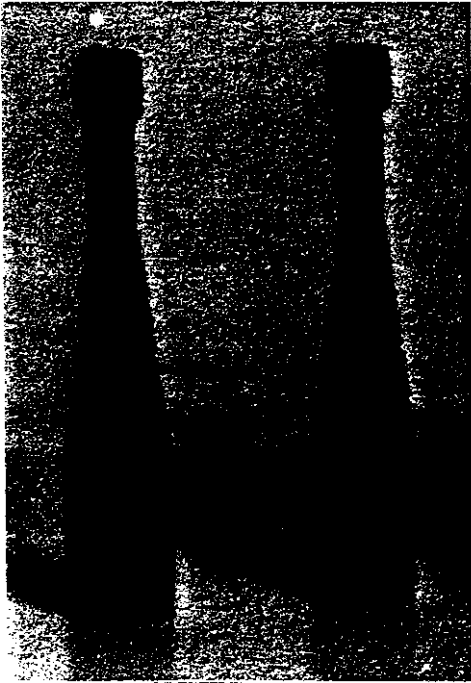


Illustration - Model N2400SM8

NCC, Inc.
18583 Parkman-Nelson Road
Parkman, OH 44080
Telephone (440) 548-5384
Fax (440) 548-5404

For All unit Power Gen

T21#5