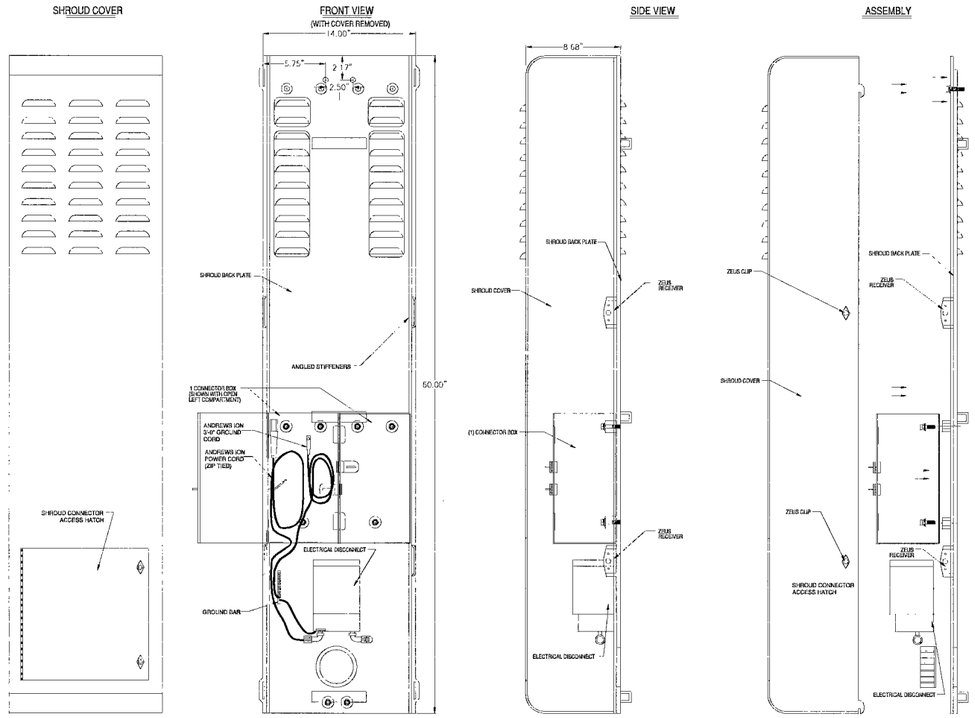


SCALE: N.T.S.

SH001 SPECIFICATIONS AND ATTACHMENT SPACER DETAILS

F

ION-M19P

ANDREW ION-19P IS A MULTI-BAND MULTI-OPERATOR REMOTE UNIT WITH VARIOUS EXTENSION UNITS. IT IS USED IN CONJUNCTION WITH A MASTER UNIT IN THE ION OPTICAL DISTRIBUTION SYSTEM. THIS SYSTEM TRANSPORTS MULTIPLE FREQUENCY BANDS SIMULTANEOUSLY (1900 MHZ AND 1700/2100 MHZ), PROVIDING A COST-EFFECTIVE SOLUTION FOR DISTRIBUTING CAPACITY FROM ONE OR MORE BASE STATIONS.

ELECTRICAL
POWER SUPPLY
MAINS POWER, VAC — 85 TO 264 / 115 OR 230
POWER CONSUMPTION, WATTS — 350
OPTICAL
CONNECTORS — E2000/APC 8°
OPTICAL RETURN LOSS, DB — 45 MINIMUM
FIBER TYPE, MM — SINGLE MODE E9/125
OPTICAL LINK BUDGET, DB — 0 TO 10
COMPOSITE INPUT POWER @ OTRX MASTER SIDE, DBM:
1900MHZ — +3 COMPOSITE
1700/2100 MHZ — +5 COMPOSITE
INTERFACE
BTS SIDE
NUMBER OF CONNECTORS
1900MHZ — 4
1700/2100 MHZ — 4
SYSTEM OPTIMIZED FOR BTS POWER, DBM — 33 / 43
ANTENNA PORT
CONNECTOR — N FEMALE
OUTPUT POWER — SEE BAND SPECIFICATION
1900 MHZ
FREQUENCY RANGE, MHZ
UPLINK — 1850 TO 1915
DOWNLINK — 1930 TO 1995
OUTPUT POWER PER CARRIER*, DBM

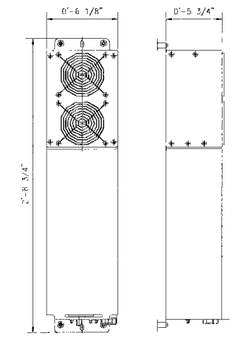
NUMBER OF CARRIERS	1	2	4	8
GSM	43	40	37	34
TDMA/ EDGE	43	40	37	34
CDMA/EV-DO		43	40	37	34
WCDMA/HSDPA		43	40	37	34

SPURIOUS EMISSION — < 13 DBM / 1MHZ
DL OUTPUT TOLERANCE OVER FREQUENCY, DB — +1
DL OUTPUT TOLERANCE OVER TEMPERATURE, DB — +0.5

INPUT ICP
ICP3 OPTIMIZED — -12
NOISE FIGURE OPTIMIZED — -18
NOISE FIGURE, DB
ICP3 OPTIMIZED — 11
NOISE FIGURE OPTIMIZED — 6
1700/2100 MHZ (IN EXTENSION UNIT)
FREQUENCY RANGE, MHZ
UPLINK — 1710 TO 1755
DOWNLINK — 2110 TO 2155
OUTPUT POWER PER CARRIER*, DBM

CDMA/EV-DO	WCDMA/UMTS/HSDPA
+43	+43 @ 1 CARRIER
+40	+40 @ 2 CARRIERS
+37	+37 @ 4 CARRIERS
+34	+34 @ 8 CARRIERS

SPURIOUS EMISSION — <- 13 DBM / 1 MHZ
ADJACENT CHANNEL POWER, DBC — -48
DL OUTPUT TOLERANCE OVER FREQ., DB — +1
DL OUTPUT TOLERANCE OVER TEMP, DB — +0.5
INPUT ICP3, DBM
ICP3 OPTIMIZED — -12
NOISE FIGURED OPTIMIZED — -18
* APPLICABLE TO SINGLE MODULATION MODE ONLY
** WITH ACTIVE COOLING



ION-M19P MULTI-BAND, MULTI-OPERATOR REMOTE OPTICAL SYSTEM

SCALE: N.T.S.

ION SPECIFICATIONS

G

MAXRAD

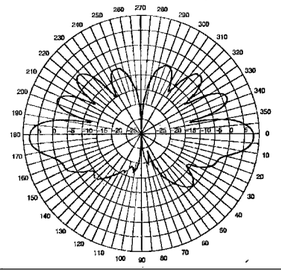
ELECTRICAL SPECIFICATIONS

BANDWIDTH	@1.5:1 VSWR 140 MHz
FREQUENCY RANGE	1850-1990 MHz
GAIN	8 dBi
GROUNDING	None
MAXIMUM POWER	25 Watts
VERTICAL BEAMWIDTH	@1/2 Power 12?/font>
VSWR	<1.5:1

MECHANICAL SPECIFICATIONS

BENDING MOMENT	5.7 ft-lbs.
EQUIVALENT FLAT PLATE AREA	.07 sq ft
HEIGHT	24.0"(609.6 mm)
LATERAL THRUST	0.70 lbs (0.318 kg)
WIND LOADING	125 mph

MFB19008A Omni Elevation Pattern 1.9 GHz



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SCALE: N.T.S.

ANTENNA SPECIFICATIONS (ANT 19008A)

H

KATHREIN SCALA DIVISION

741 968
88° Panel Antenna

GENERAL SPECIFICATIONS:

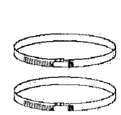
FREQUENCY RANGE	1710–2170 MHz
VSWR	<1.5:1
IMPEDANCE	50 OHMS
INTERMODULATION (2x20w)	IM3: 150 dBc
POLARIZATION	+45° AND -45°
FRONT-TO-BACK RATIO	>25 dB (CO-POLAR)
	>25 dB (TOTAL POWER)
CONNECTOR	2 x 7/16 DIN FEMALE
ISOLATION	>30 dB
MAXIMUM INPUT POWER	300 WATTS (AT 50°C) PER INPUT
WEIGHT	9.3 lbs (4.2 kg)
DIMENSIONS	26.1 x 6.1 x 2.7 INCHES
	(662 x 155 x 68 mm)
EQUIVALENT FLAT PLATE AREA	1.54 ft² (0.143 m²)
WIND SURVIVAL RATING*	120 mph (200 kph)
SHIPPING DIMENSIONS	36.8 x 6.8 x 3.6 INCHES
	(935 x 172 x 92 mm)
SHIPPING WEIGHT	12 lbs (5.5 kg)
MOUNTING	FIXED AND TILT MOUNT OPTIONS ARE AVAILABLE FOR 1.2 TO 5.3 INCH (30 TO 135 mm) OD MASTS

SPECIFICATIONS:

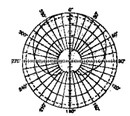
	1710–1880 MHz	1850–1990 MHz	1920–2170 MHz
GAIN	13.7 dBi	14 dBi	14.1 dBi
HORIZONTAL BEAMWIDTH	88° (HALF POWER)	88° (HALF POWER)	88° (HALF POWER)
VERTICAL BEAMWIDTH	14.7° (HALF POWER)	14° (HALF POWER)	13° (HALF POWER)
ELECTRICAL DOWNTILT	0°-10°	0°-10°	0°-10°
CONTINUOUSLY ADJUSTABLE	(MANUAL OR OPTIONAL REMOTE CONTROL)		
SIDELOBE SUPPRESSION FOR FIRST SIDELOBE ABOVE HORIZON	0° 4° 8° 10° T 18 18 18 18 dB	0° 4° 8° 10° T 18 18 18 18 dB	0° 4° 8° 10° T 18 18 18 18 dB
CROSS POLAR RATIO			
MAIN DIRECTION 0°	20 dB (TYPICAL)	20 dB (TYPICAL)	20 dB (TYPICAL)
SECTOR ±60°	>10 dB	>10 dB	>10 dB

MOUNTING OPTIONS:

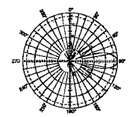
MODEL	DESCRIPTION
2 x 131 1847 (SHOWN)	MOUNTING KIT FOR 2 TO 5.7 INCH (50 TO 145 mm) OD MAST.
742 263	THREE-PANEL SECTOR MOUNTING KIT (120 DEG. EA.) FOR 3.5 INCH (89 mm) OD MAST
732 327	TILT KIT FOR USE WITH MOUNTING KIT LISTED BELOW, 0–20 DEGREES DOWNTILT ANGLE.



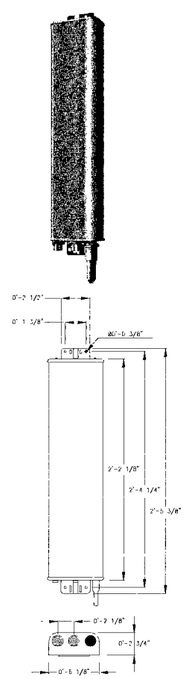
2 x 131 1847 Mounting Kit



Horizontal pattern ±45°- polarization



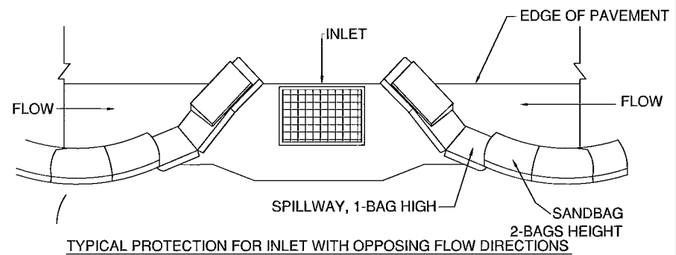
Vertical pattern ±45°- polarization



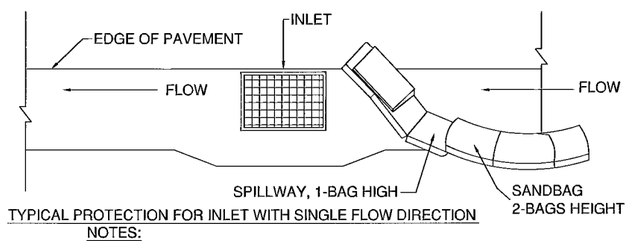
SCALE: N.T.S.

ANTENNA SPECIFICATIONS (ANT KS741988)

I



TYPICAL PROTECTION FOR INLET WITH OPPOSING FLOW DIRECTIONS



TYPICAL PROTECTION FOR INLET WITH SINGLE FLOW DIRECTION

NOTES:
1. INTENDED FOR SHORT-TERM USE.
2. USE TO INHIBIT NON-STORM WATER FLOW.
3. ALLOW FOR PROPER MAINTENANCE AND CLEANUP.
4. BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED.
5. NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

SCALE: N.T.S.

STORM DRAIN INLET PROTECTION

J

NextG Networks of California, Inc.
2216 O'TOOLE AVE.
SAN JOSE, CALIFORNIA 95131
PHONE: (408) 954-1580

PROJECT INFORMATION:

SPR1009NV-SUMN048M1
LAS VEGAS, NV 89138

CURRENT ISSUE DATE:

03/10/2010

PERMIT SUBMISSION:

REV.:	DATE:	DESCRIPTION:	BY:

PLANS BY:

NextG Networks of California, Inc.

REP:

COMMENTS:

HP 37706
DWG# 1071541 9-TEC

SHEET TITLE:

TYPICALS 2

SHEET NUMBER: **7**

REVISION:

7 OF 8