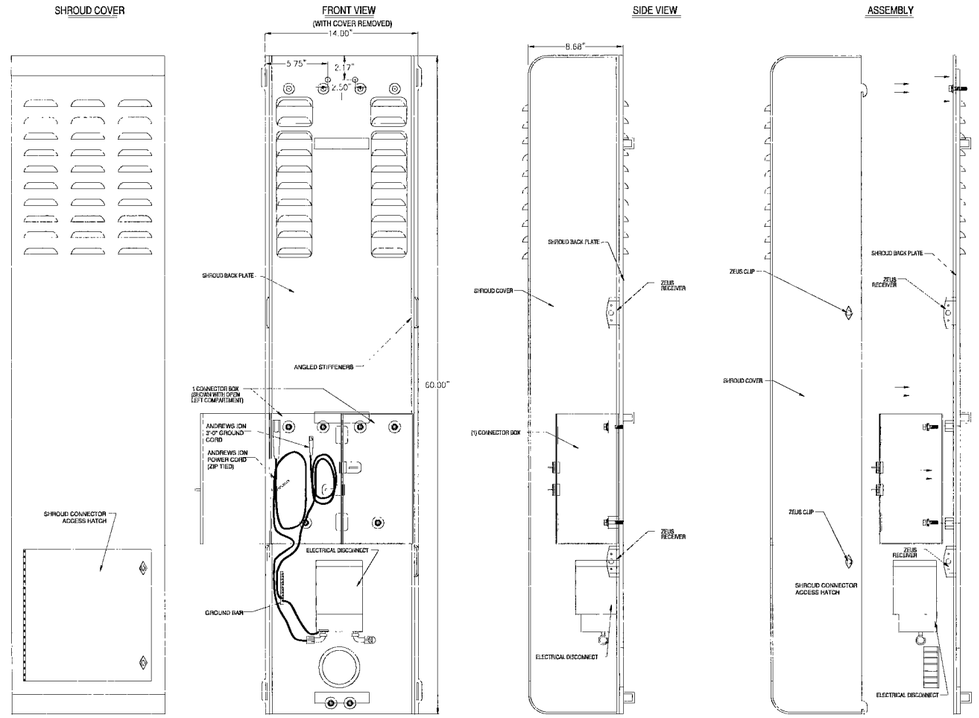


SCALE: N.T.S.

SH001 SPECIFICATIONS AND ATTACHMENT SPACER DETAILS

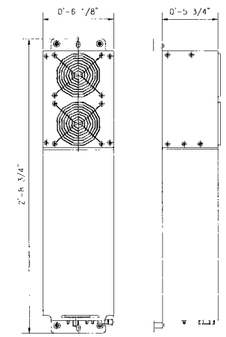
F

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	F9000/APC 8°
OPTICAL RETURN LOSS, DB.	45 MINIMUM
FIBER TYPE, MM	SINGLE MODE F9/125
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 IOP	
IOP3 OPTIMIZED	-12
NOISE FIGURE OPTIMIZED	-18
NOISE FIGURE, DB	
IOP3 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 IOP3, DBM	
IOP3 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

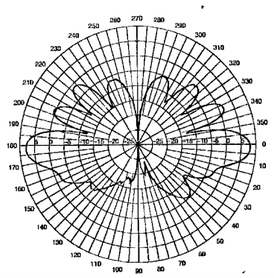
ELECTRICAL SPECIFICATIONS

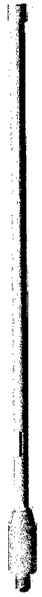
BANDWIDTH	@1.5:1 VSWR 140 MHz
FREQUENCY RANGE	1850-1990 MHz
GAIN	8 dBi
GROUNDING	None
MAXIMUM POWER	25 Watts
VERTICAL BEAMWIDTH	@1/2 Power 12?/font>
VSWR	<1.5:1

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

MFB19009A Omni Elevation Pattern 1.9 GHz





122783

SCALE: N.T.S.

ANTENNA SPECIFICATIONS (ANT 19008A)

H

KATHREIN SCALA DIVISION

741 988

68° Panel Antenna

GENERAL SPECIFICATIONS:

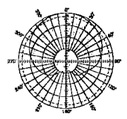
FREQUENCY RANGE	1710-2170 MHz
VSWR	<1.5:1
IMPEDANCE	50 OHMS
INTERMODULATION (2x20W)	IM3 -150 dBc
POLARIZATION	+45° AND -45°
FRONT-TO-BACK RATIO	>25 dB (CO-POLAR) >25 dB (TOTAL POWER)
CONNECTOR	2 x 7/16 DIN (EMAI)
ISOLATION	>30 dB
MAXIMUM INPUT POWER	300 WATTS (AT 50°C) PER INPUT
WEIGHT	9.3 lbs (4.2 kg)
DIMENSIONS	26.1 x 6.1 x 2.7 INCHES (662 x 155 x 69 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 (5.4 kg)
MOUNTING	FIXED AND TILT MOUNT OPTIONS ARE AVAILABLE FOR 1.2 TO 5.3 INCH (30 TO 135 mm) OD MASTS

SPECIFIACTIONS:	1710-1880 MHz	1850-1990 MHz	1920-2170 MHz
GAIN	13.7 dBi	14 dBi	14.1 dBi
HORIZONTAL BEAMWIDTH	66° (HALF POWER)	68° (HALF POWER)	66° (HALF POWER)
VERTICAL BEAMWIDTH	14.2° (HALF POWER)	14° (HALF POWER)	13° (HALF POWER)
ELECTRICAL DOWNTILT	0° 10°	0° 10°	0° 10°
CONTINUOSLY ADJUSTABLE	(MANUAL OR OPTIONAL REMOTE CONTROL)		
SIDELOBE SUPPRESSION FOR FIRST SIDELOBE ABOVE HORIZON	0° 4° 8° 10° 1 18 18 18 18 dB	0° 4° 8° 10° 1 18 18 18 18 dB	0° 4° 8° 10° 1 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

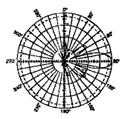
MOUNTING OPTIONS:

MODEL	DESCRIPTION
2 x 131 1847 (SHOWN)	MOUNTING KIT FOR 2 TO 5.7 INCH (50 TO 145 mm) OD MASTS
742 263	TRIPLE PANEL SECTOR MOUNTING KIT (120 DEG. FA.) 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

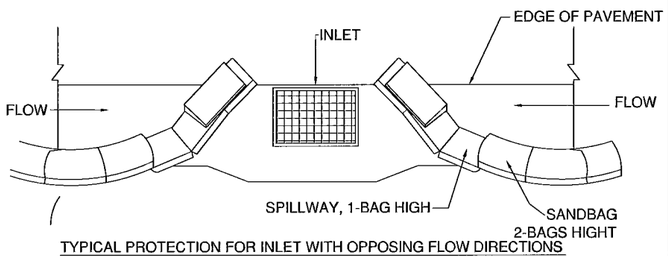


Vertical pattern ±45°- polarization

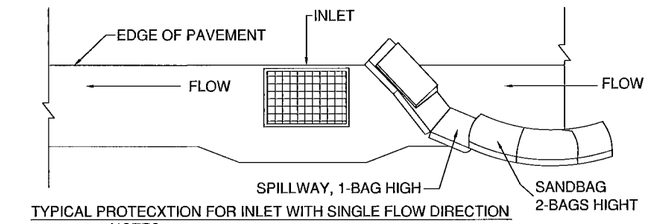
SCALE: N.T.S.

ANTENNA SPECIFICATIONS (ANT KS741988)

I



TYPICAL PROTECTION FOR INLET WITH OPPOSING FLOW DIRECTIONS



TYPICAL PROTECXTION 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-SUMN008
LAS VEGAS, NV 89134

CURRENT ISSUE DATE:

03/10/2010

PERMIT SUBMISSION:

REV.:	DATE:	DESCRIPTION:	BY:

PLANS BY:

NextG Networks of California, Inc.

REP:

COMMENTS:

HW 37686
PWG #
1070 5425-TEL

SHEET TITLE:

TYPICALS 2

SHEET NUMBER: **5**

REVISION:

5 OF 6