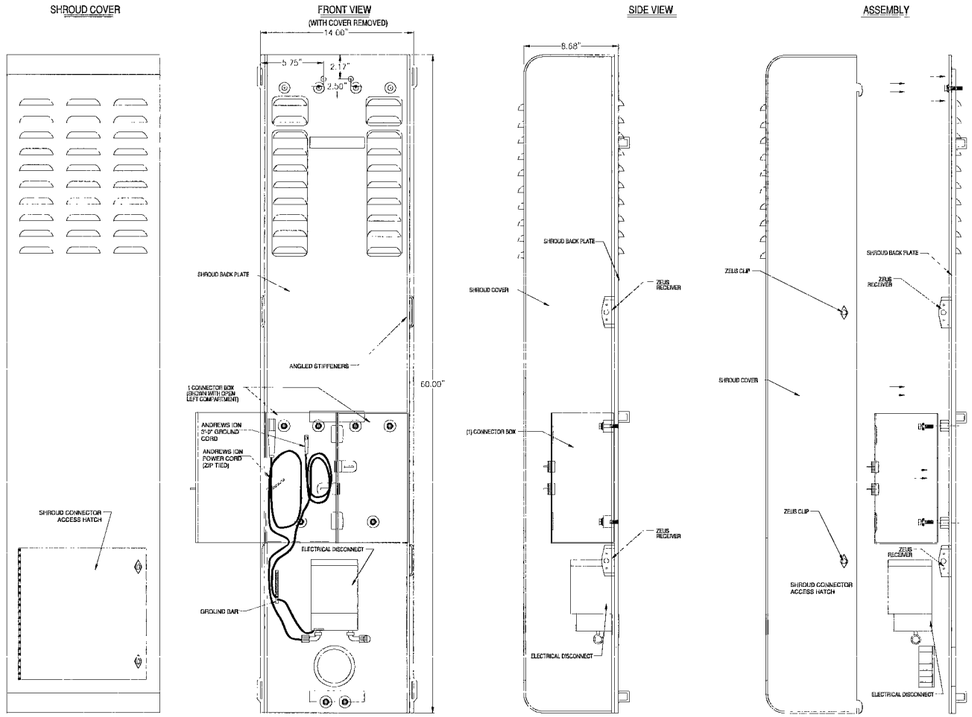


SCALE:	SH001 SPECIFICATIONS AND ATTACHMENT SPACER DETAILS	F
N.T.S.		

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	35 43
ANTENNA PORT	
CONNECTOR	N (F) MAIN
OUTPUT POWER	SEE BAND SPECIFICATION
1900 MHZ	
FREQUENCY RANGE, MHZ	
UPLINK	1850 TO 1915
DOWNLINK	1930 TO 1995

OUTPUT POWER PER CARRIER*, DBM

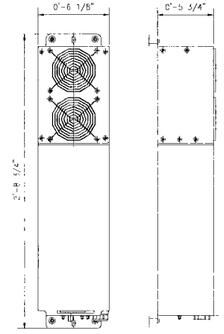
NUMBER OF CARRIERS	1	2	4	8
GSM	43	40	37	34
TDMA/ EDGE	43	40	37	34
CDMA/EV-DO	43	40	37	34
WCDMA/HSDPA	43	40	37	34

SPURIOUS EMISSION	< 13 DBM / 1 MHZ
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:	ION SPECIFICATIONS	G
N.T.S.		

MAXRAD

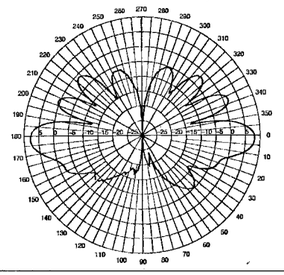
ELECTRICAL SPECIFICATIONS

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



122861

SCALE:	ANTENNA SPECIFICATIONS (ANT 19008A)	H
N.T.S.		

KATHREIN
SCALA DIVISION

741 988
86° 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	8.3 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 (5.5 kg)
MOUNTING	FIXED AND TILT MOUNT OPTIONS ARE AVAILABLE FOR 1.2 TO 5.3 INCH (30 TO 135 mm) OD MASTS

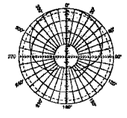
SPECIFICATIONS:

	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	0° 4° 8° 10° T	0° 4° 8° 10° T	0° 4° 8° 10° T
FIRST SIDELOBE ABOVE HORIZON	18 18 18 18 dB	18 18 18 18 dB	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

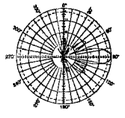
MOUNTING OPTIONS:

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. I.A.) FOR 3.5 INCH (89 mm) OD MAST
732 327	TILT KIT FOR USE WITH MOUNTING KIT LISTED BELOW, 0–20 DEGREES DOWNTILT ANGLE.

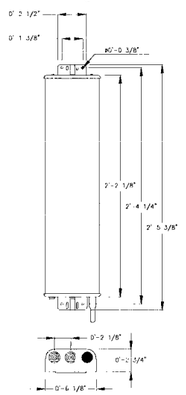
2 x 131 1847 Mounting Kit



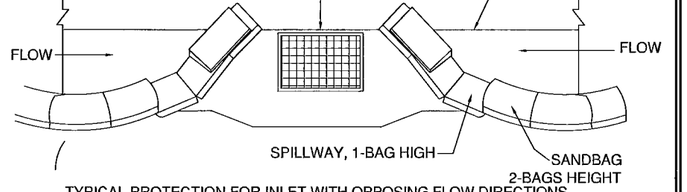
Horizontal pattern
±45°- polarization



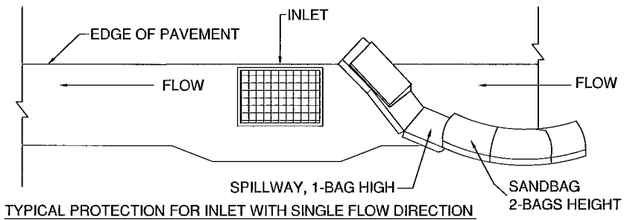
Vertical pattern
±45°- polarization



SCALE:	ANTENNA SPECIFICATIONS (ANT KS741988)	I
N.T.S.		



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:	STORM DRAIN INLET PROTECTION	J
N.T.S.		

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

PROJECT INFORMATION:

SPR1009NV-SUMN016M1
LAS VEGAS, NV 89144

CURRENT ISSUE DATE:

03/10/2010

PERMIT SUBMISSION:

REV.:	DATE:	DESCRIPTION:	BY:

PLANS BY:

NextG Networks of California, Inc.

REP.:

COMMENTS:

H # 37705
pwg #
1074-5420-TBC

SHEET TITLE:

TYPICALS 2

SHEET NUMBER: **5** REVISION: **5 OF 6**