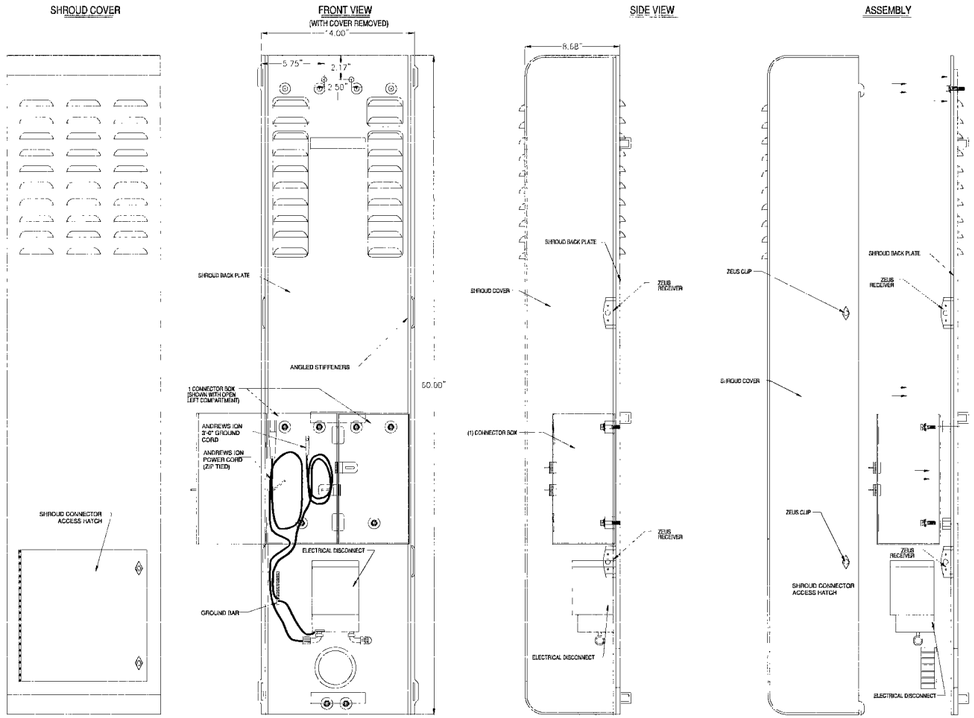


SCALE: N.T.S.

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.

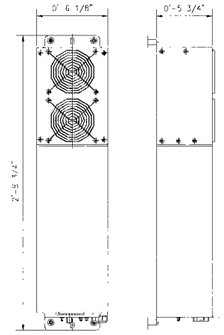
ELECTRICAL	
POWER SUPPLY	
MAINS POWER, VAC	85 TO 264 115 OR 230
POWER CONSUMPTION, WATTS	550
OPTICAL	
CONNECTORS	E2000/APC 8°
OPTICAL RETURN LOSS, DB	45 MINIMUM
FIBER TYPE, MM	SINGLE MODE E9/125
OPTICAL LINK BUDGET, DB	0 TO 10
COMPOSITE INPUT POWER @ DTRX MASTER SIDE, DBM	
1900MHZ	+3 COMPOSITE
1700/2100 MHZ	+5 COMPOSITE
INTERFACE	
BTS SIDE	
NUMBER OF CONNECTORS	
1900MHZ	4
1700/2100 MHZ	4
SYSTEM OPTIMIZED FOR BTS POWER, DBM	43
	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	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 IIP3	
IIP3 OPTIMIZED	-12
NOISE FIGURE OPTIMIZED	-18
NOISE FIGURE, DB	
IIP3 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 IIP3, DBM	
IIP3 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

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

PROJECT INFORMATION:

SPR1009NV-SUMN041
LAS VEGAS, NV 89117

CURRENT ISSUE DATE:

03/13/2010

PERMIT SUBMISSION:

REV.:	DATE:	DESCRIPTION:	BY:

MAXRAD

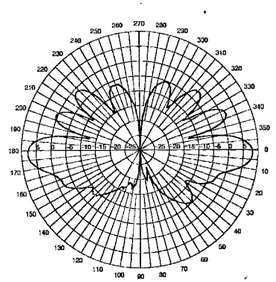
ELECTRICAL SPECIFICATIONS

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

741 988
86° Panel Antenna

GENERAL SPECIFICATIONS:

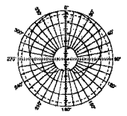
FREQUENCY RANGE	1710–2170 MHz
VSWR	<1.5:1
IMPEDANCE	50 OHMS
INTERMODULATION (2x20W)	IM3, 150 dBc
POLARIZATION	+45° AND -45°
FRONT-TO-BACK RATIO	>25 dB (CO-POLAR) >25 dB (TOTAL POWER)
CONNECTOR	2 x 7/16 DIN FEMALE
ISOLATION	>30 dB
MAXIMUM INPUT POWER	300 WATTS (AT 50°C) PER INPUT
WEIGHT	9.3 lbs (4.2 kg)
DIMENSIONS	26.1 x 6.1 x 2.7 INCHES (662 x 155 x 69 mm)
EQUIVALENT FLAT PLATE AREA	0.54 ft² (0.143 m²)
WIND SURVIVAL RATING*	220 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)	86° (HALF POWER)
VERTICAL BEAMWIDTH	14.7° (HALF POWER)	14° (HALF POWER)	13° (HALF POWER)
ELECTRICAL DOWNTILT	0° TO 10°	0° TO 10°	0° TO 10°
CONTINUOUSLY ADJUSTABLE	(MANUAL OR OPTIONAL REMOTE CONTROL)		
SIDELOBE SUPPRESSION FOR FIRST SIDELOBE ABOVE HORIZON	0° 4° 8° 10° 18 18 18 18 dB	0° 4° 8° 10° 18 18 18 18 dB	0° 4° 8° 10° 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

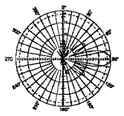
MOUNTING OPTIONS:

MODEL	DESCRIPTION
2 x 131 1847 (SHOWN)	MOUNTING KIT FOR 2 TO 5.7 INCH (50-10-145 mm) OD MAST
742 265	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)

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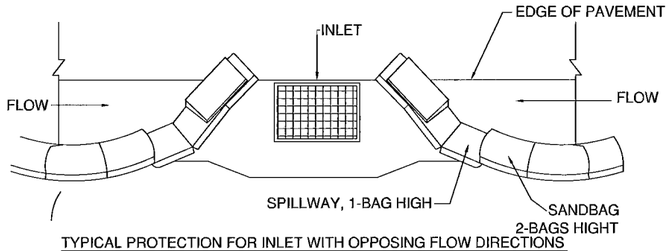
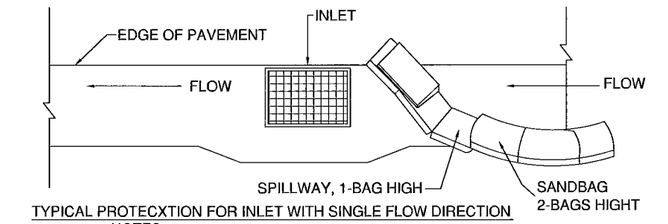


TYPICAL PROTECTION FOR INLET WITH OPPOSING FLOW DIRECTIONS



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

PLANS BY:

NextG Networks of California, Inc.

REP:

COMMENTS:

W.O. # 37512

Dwg # 107451401-TGL

SHEET TITLE:

TYPICALS 2

SHEET NUMBER: **5**

REVISION:

5 OF 6