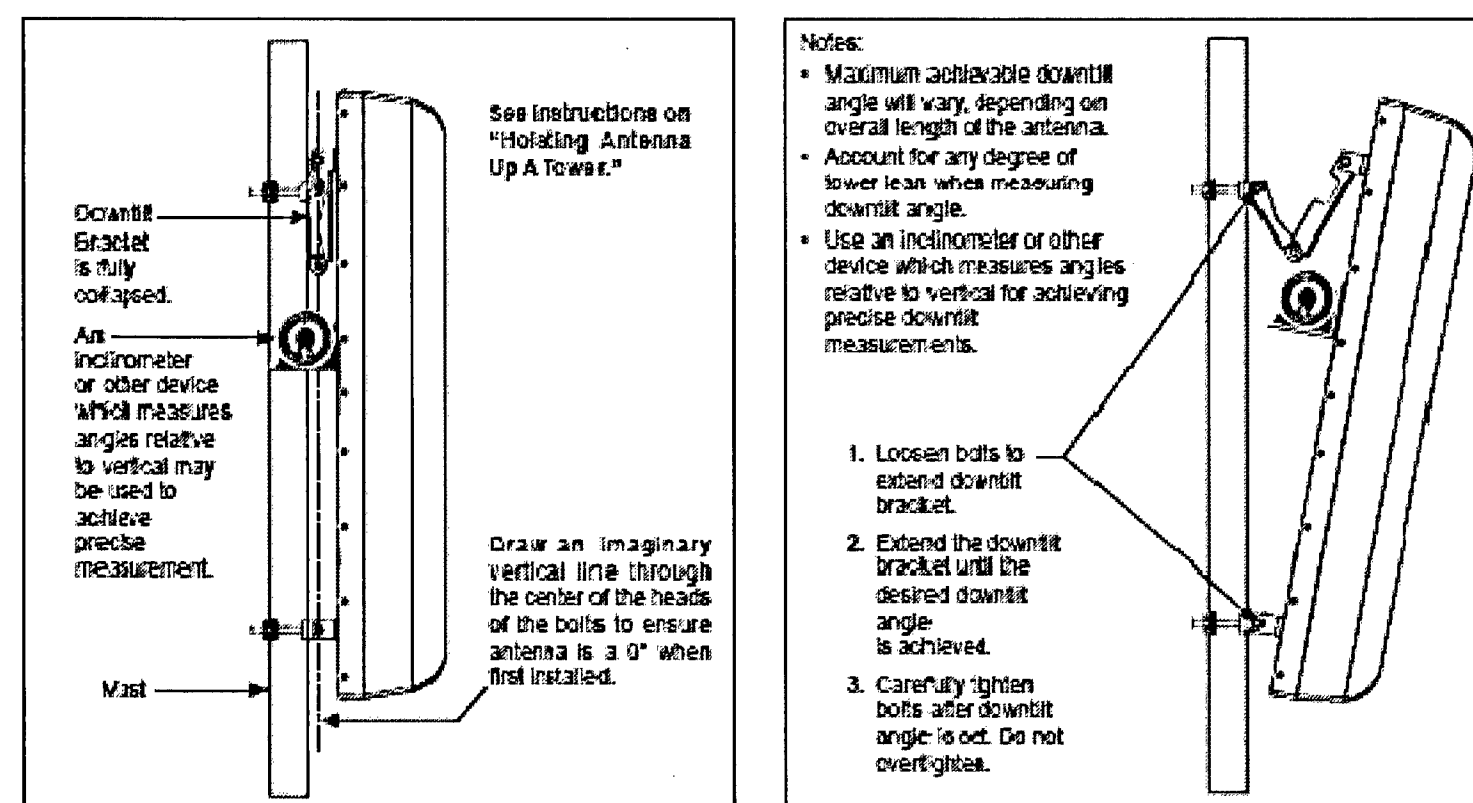


Attaching Antenna to a Mast Using DB5083/DB5083-D Downtilt Mount and DB350/DB350-1 Pipe Mount.



ANTENNA MOUNTING

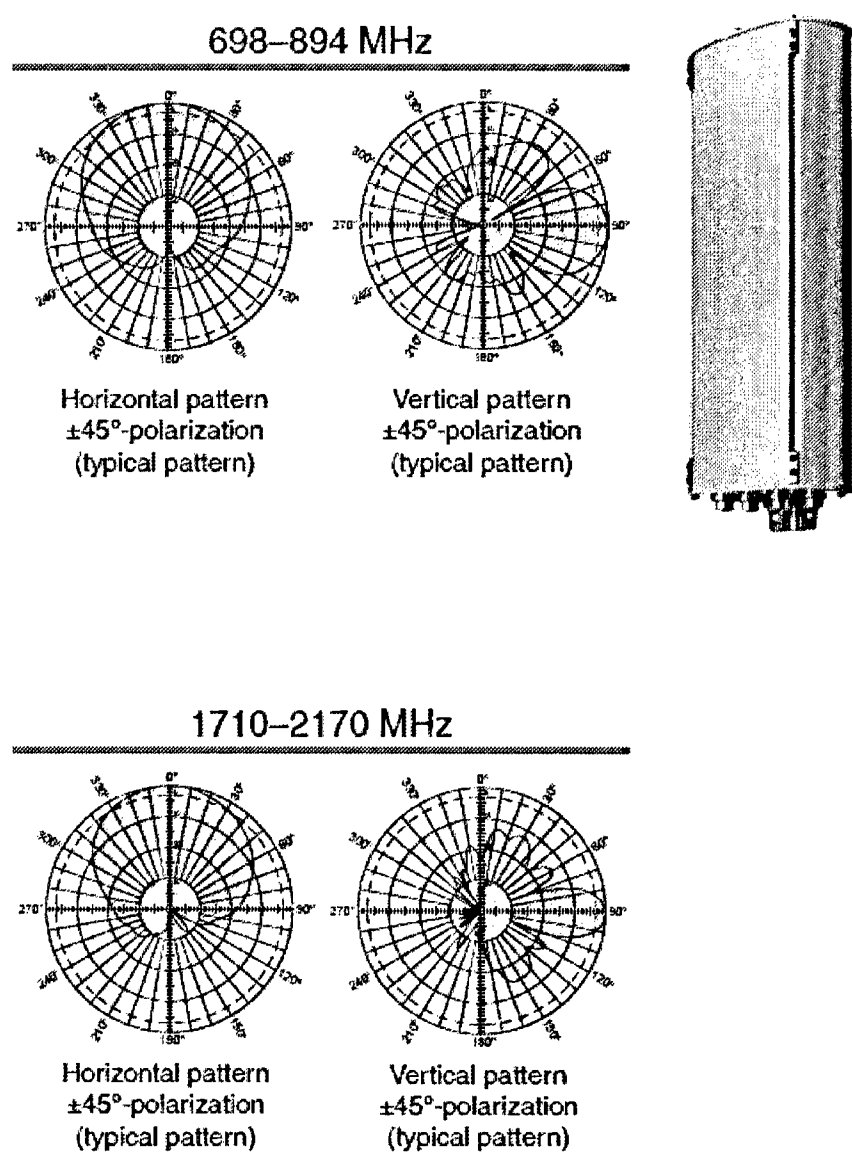
2

ION-M7P/7P/85P/19P

GENERAL SPECIFICATIONS:

- FREQUENCY RANGE: 698-894 MHz
- IMPEDANCE: 1710-2170 MHz, 50 OHMS
- VSWR: < 1.5:1
- INTERMODULATION (2X20) IM3: < -150 dBc
- POLARIZATION: +45° AND -45°
- CONNECTOR: 4 X 7-16 DIN FEMALE
- ISOLATION INTRASYSTEM: > 30 dB
- WEIGHT: 15.9 lb (7.2 kg)
- DIMENSIONS: 23.3 X 10.6 X 6.2 INCHES
- WIND LOAD AT 93 mph (150 kph): 23 lbf / 18 lbf / 41 lbf / (100 N) / (80 N) / (180 N)
- WIND SURVIVAL RATING: 120 mph (200 kph)
- MOUNTING FIXED AND TILT MOUNT OPTIONS ARE AVAILABLE FOR 20 TO 4.6 INCH (50 TO 115 mm) OD MASTS

840 10525
65° Dualband Directional Antenna



840 10525 ANTENNA

3

ELECTRICAL

POWER SUPPLY	115 OR 230
MAINS POWER, VAC	
POWER CONSUMPTION, WATTS	1100 MAX. <750 @ NORMAL OPERATION

OPTICAL

CONNECTORS	E2000/APC B
OPTICAL RETURN LOSS, dB	45 MINIMUM
FIBER TYPE, MM	SINGLE MODE E9/125
OPTICAL LINK BUDGET, dB	0 TO 10
COMPOSITE INPUT POWER	
OTR MASTER SIDE, dBm	
INPUT POWER RANGE, dBm	
700 MHz	7.0 NOMINAL
850 MHz	7.0 NOMINAL
1900 MHz	7.0 NOMINAL
RF INTERFACE	
BTS SIDE (SMA)	
NUMBER OF CONNECTORS	STANDARD
CH1 700.....	1 UL/1 DL
CH2 700.....	1 UL/1 DL
850 MHz.....	1 UL/1 DL
1900 MHz.....	1 UL/1 DL

SYSTEM OPTIMIZED FOR BTS POWER, DBM

	33
	43

700 MHz SISO/MIMO

FREQUENCY RANGE, MHz	
UPLINK.....	698 TO 716/776 TO 787
DOWNLINK.....	728 TO 757
OUTPUT PER CARRIER*, dBm	
NUMBER OF CARRIERS:	1 2 4 8
LTE	43 40** 37 34

DL OUTPUT TOLERANCE OVER FREQUENCY, dB...±1

DL OUTPUT TOLERANCE OVER TEMPERATURE, dB...±0.5	
SPURIOUS EMISSION	<-13 dBm/1MHz
SPURIOUS EMISSION INTO PUBLIC SAFETY NARROWBAND	<-46 dBm/6.25 kHz
INPUT ICP3, dBm*	ICP3 OPTIMIZED.....-13.0 MIN. NOISE FIGURE OPTIMIZED.....-19.0 MIN.
NOISE FIGURE, dB*	ICP3 OPTIMIZED.....+10.5 MAX. NOISE FIGURE OPTIMIZED.....+6.0 MAX.

DL OUTPUT TOLERANCE OVER FREQUENCY, dB...±1

DL OUTPUT TOLERANCE OVER TEMPERATURE, dB...±0.5	
SPURIOUS EMISSION	<-13 dBm/1MHz
SPURIOUS EMISSION INTO PUBLIC SAFETY NARROWBAND	<-46 dBm/6.25 kHz
INPUT ICP3, dBm*	ICP3 OPTIMIZED.....-12 MIN. NOISE FIGURE OPTIMIZED.....-18 MIN.
NOISE FIGURE, dB*	ICP3 OPTIMIZED.....+11 MAX. NOISE FIGURE OPTIMIZED.....+6 MAX. 4.5 TYP.

ION SPECIFICATIONS

850 MHz

FREQUENCY RANGE, MHz	
UPLINK.....	824 TO 849
DOWNLINK.....	869 TO 894
OUTPUT PER CARRIER*, dBm	
NUMBER OF CARRIERS:	1 2 4 8
GSM/EDGE	43 40 37 34
CDMA	43 40 37 34
LTE	43 40** 37 34
UMTS	42 39 36 33

DL OUTPUT TOLERANCE OVER FREQUENCY, dB...±1

DL OUTPUT TOLERANCE OVER TEMPERATURE, dB...±0.5	
SPURIOUS EMISSION	<-13 dBm/1MHz
INPUT ICP3, dBm*	ICP3 OPTIMIZED.....-11.0 MIN. NOISE FIGURE OPTIMIZED.....-18.0 MIN.
NOISE FIGURE, dB*	ICP3 OPTIMIZED.....+10 MAX. NOISE FIGURE OPTIMIZED.....+6 MAX. 4.5 TYP.

1900 MHz

FREQUENCY RANGE, MHz	
UPLINK.....	1850 TO 1915
DOWNLINK.....	1930 TO 1995
OUTPUT PER CARRIER*, dBm	
NUMBER OF CARRIERS:	1 2 4 8
GSM/EDGE	43 40 37 34
CDMA	43 40 37 34
LTE	43 40** 37 34
UMTS	42 39 36 33

DL OUTPUT TOLERANCE OVER FREQUENCY, dB...±1

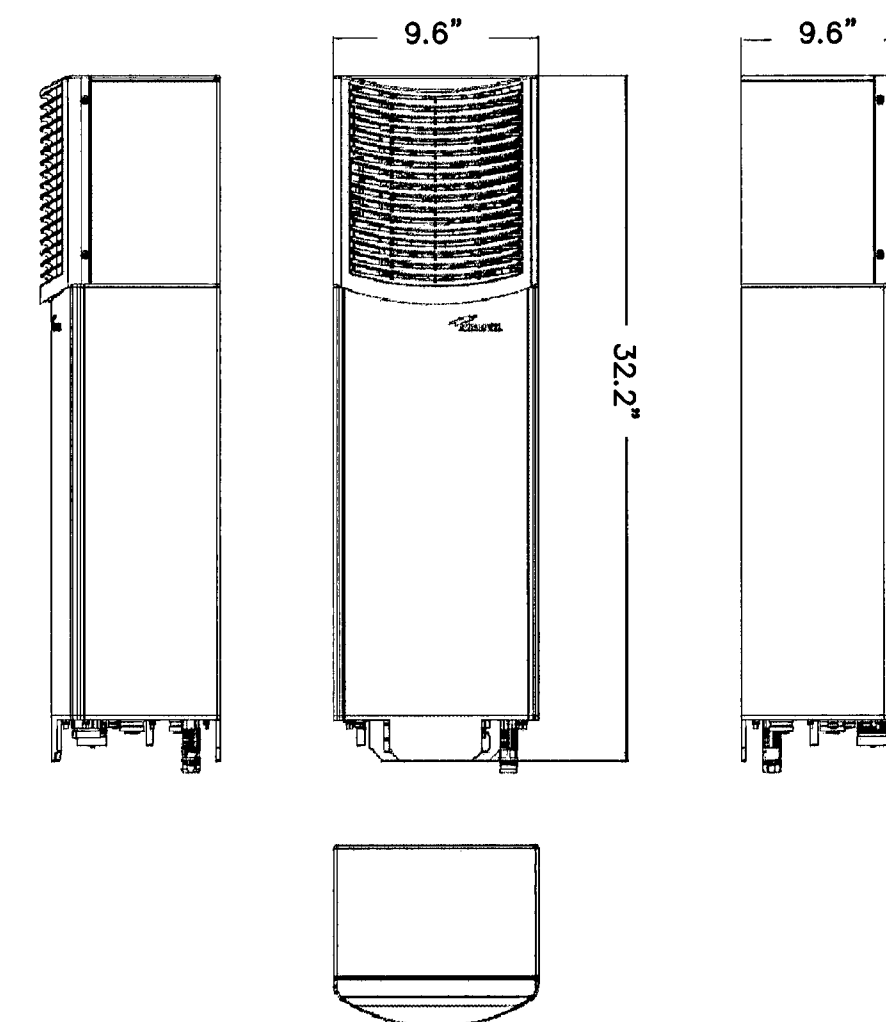
DL OUTPUT TOLERANCE OVER TEMPERATURE, dB...±0.5	
SPURIOUS EMISSION	<-13 dBm/1MHz
INPUT ICP3, dBm*	ICP3 OPTIMIZED.....-12 MIN. NOISE FIGURE OPTIMIZED.....-18 MIN.
NOISE FIGURE, dB*	ICP3 OPTIMIZED.....+11 MAX. NOISE FIGURE OPTIMIZED.....+6 MAX. 4.5 TYP.

*APPLICABLE TO SINGLE MODULATION MODE ONLY
**ADDITIONAL 2dB POWER REDUCTION IF CARRIER BANDWIDTH < 5 MHz

ALL FIGURES TYP. VALUES, UNLESS OTHERWISE STATED

ION SPECIFICATIONS

1



ION-M7P/7P/85P/19P Cabinet Drawing

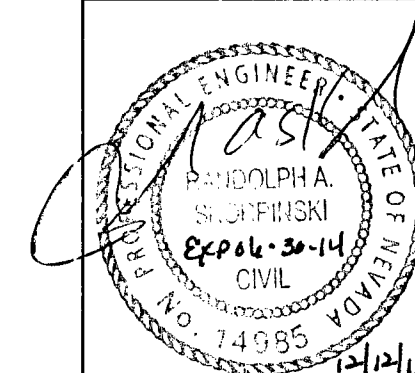
REVISIONS

REV.	DESCRIPTION	APPROV. BY	DATE

SPECTRUM
SPECTRUM SERVICES, INC.
8905 W. POST ROAD, SUITE 100
LAS VEGAS, NEVADA 89148
OFFICE: (702) 367-7705
FAX: (702) 367-8733

CROWN CASTLE
CROWN CASTLE
NG WEST, INC.
695 RIVER OAKS PARKWAY
SAN JOSE, CALIFORNIA 95134

IMPROVEMENT PLANS
FOR SUMMERLIN
DETAIL SHEET
VSUM10m1 FIBER OPTIC CABLE
IMPROVEMENTS IN SUMMERLIN
W. LAKE MEAD BLVD.
(1100 FT. NORTHWEST OF SPRINGFIELD)



ENGINEER'S SEAL

CONTRACTED WITH:	HP COMMUNICATIONS
PERMIT #	
DATE:	12/10/13
JOB NO.:	CD13030
DRAWN BY:	NEL
CHECKED BY:	RAS
SCALE:	NONE

SHEET 6 OF 7

C6