

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

ELECTRICAL	
POWER SUPPLY	
MAINS POWER, VAC	115 OR 230
POWER CONSUMPTION, WATTS	1100 MAX.
	<750 @ NORMAL OPERATION
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	
700 MHz	7.0 NOMINAL
850 MHz	7.0 NOMINAL
1900 MHz	7.0 NOMINAL
INPUT POWER RANGE, dBm	
700 MHz	-15 TO +14
850 MHz	-15 TO +14
1900 MHz	-12 TO +14

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.

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.

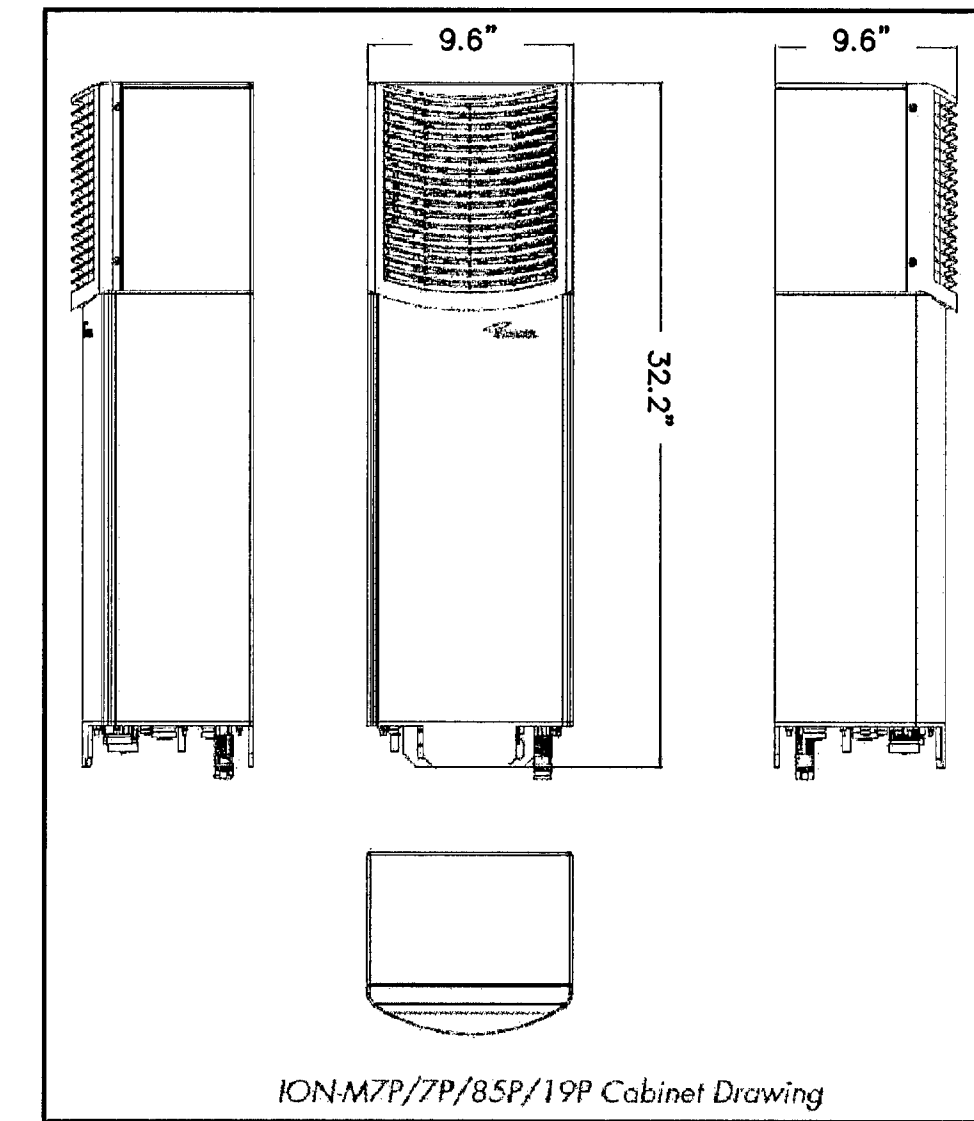
1900 MHz	
FREQUENCY RANGE, MHz	
UPLINK.....	1850 TO 1915
DOWNLINK.....	1930 TO 1995
OUTPUT PER CARRIER*, dBm	
NUMBER OF CARRIERS:	1 2 4 8
GSM/EDGE	43 40 37 34
CDMA	43 40 37 34
LTE	43 40** 37 34
UMTS	42 39 36 33

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

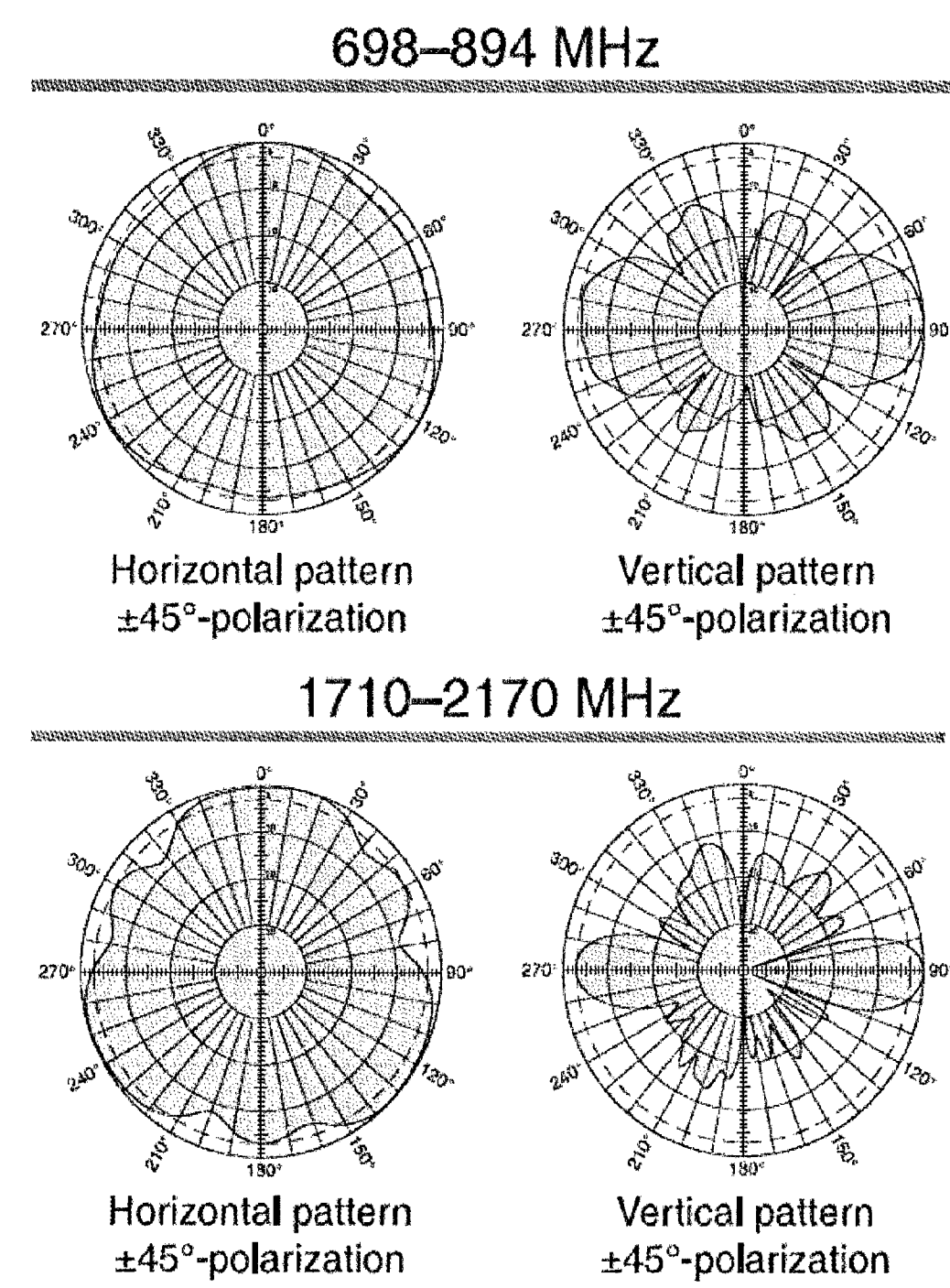


ION-M7P/7P/85P/19P Cabinet Drawing

GENERAL SPECIFICATIONS

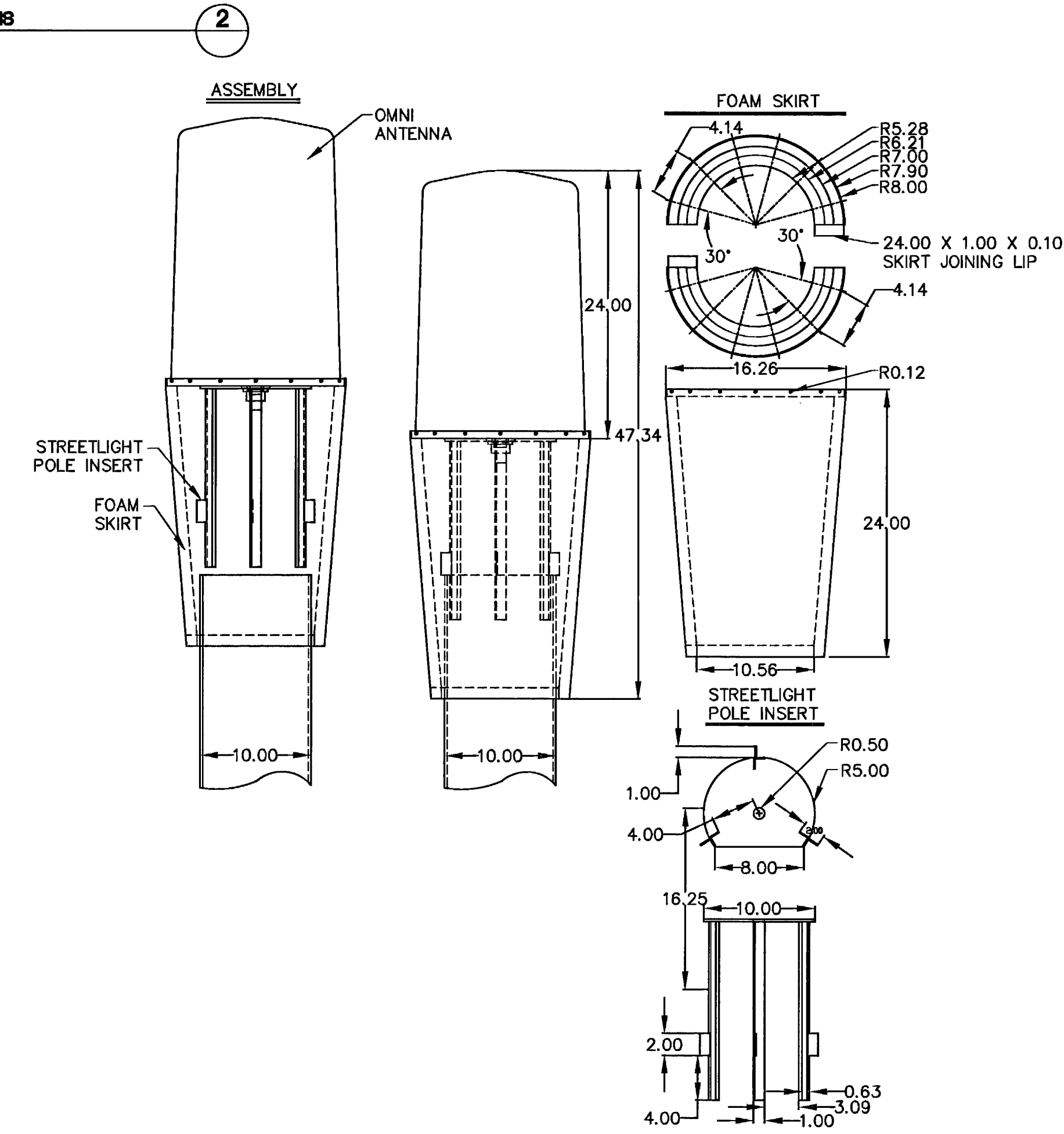
- FREQUENCY RANGE: 898-894 MHz, 1710-2170 MHz
- VSWR: <1.5:1
- IMPEDANCE: 50 OHMS
- INTERMODULATION: IM3: < -150 dBc
- POLARIZATION: +45° UPPER AND LOWER BAND, -45° UPPER AND LOWER BAND
- ISOLATION INTRASYSTEM: > 30 dB, > 40 dB (698-894 // 1710-2170 MHz)
- RADOME COLOR: BROWN OR GREY
- WEIGHT: 45 lb (20.4 kg)
- HEIGHT: 24 INCHES (609 mm)
- RADOME DIAMETER: 16 INCHES (407 mm)
- WIND LOAD SIDE: AT 93 MPH (150 kph), 32 lbf (138 N)
- WIND SURVIVAL RATING: 100 MPH (160 kph)

ION SPECIFICATIONS



840 10510 ANTENNA

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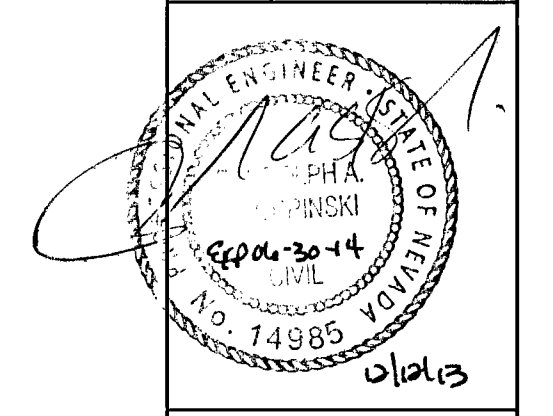
REVISIONS

REV.	DESCRIPTION	APPROV. BY	DATE

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CROWN CASTLE ENGINEERING, INC.
685 RIVER OAKS PARKWAY
SAN JOSE, CALIFORNIA 95134

IMPROVEMENT PLANS FOR SUMMERLIN
DETAIL SHEET
VFH15m1 FIBER OPTIC CABLE IMPROVEMENTS IN SUMMERLIN DESERT SUNRISE RD.
(360 FT. SOUTH OF DESERT MOON RD.)



ENGINEER'S SEAL	
CONTRACTED WITH:	HP COMMUNICATIONS
PERMIT #	
DATE:	11/08/13
JOB NO:	CD13030
DRAWN BY:	NEL
CHECKED BY:	RAS
SCALE:	NONE