





Electrical	
Power Supply	
Mains Power, Vac.	85 to 264
	115 or 230
Power consumption, watts	1150

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	
1900 MHz	+5 composite
1700 / 2100 MHz	+5 composite

Interface	
BTS Side	
Number of connectors	
1900 MHz	4
1700/2100 MHz	4
System optimized for BTS power, dBm	
	33
	43

Antenna Port Connector	7/16 Female
Output power	See band specification
Return loss, dB	15

1700/2100 MHz (AWS)	
Frequency range, MHz	
Uplink	1710 to 1755
Downlink	2110 to 2155

Output power per carrier, dBm*	
Number of Carriers	1 2 4 8
GSM	45 42 39 36
CDMA	45 42 39 36
UMTS	45 42 39 36
LTE	45 42** 39 36

Spurious emission < -13 dBm / 1 MHz

Adjacent channel power, dBc	-48
DL output tolerance over frequency, dB	±1
DL output tolerance over temperature, dB	0.5***
Input ICP3, dBm	
ICP3 optimized	-12
Noise figure optimized	-18
Noise figure, dB	
ICP3 optimized	7
	11 max.
Noise figure optimized	4.5
	6 max.

1900 MHz (AWS)	
Frequency range, MHz	
Uplink	1850 to 1915
Downlink	1930 to 1995

Output power per carrier, dBm*	
Number of Carriers	1 2 4 8
GSM	45 42 39 36
CDMA	45 42 39 36
UMTS	45 42 39 36
LTE	45 42** 39 36

Spurious emission	< -13 dBm / 1 MHz
DL output tolerance over frequency, dB	±1
DL output tolerance over temperature, dB	0.5***
Input ICP3, dBm	
ICP3 optimized	-12
Noise figure optimized	-18

Noise figure, dB	
ICP3 optimized	7
	11 max.
Noise figure optimized	4.5
	6 max.

System Supervision and Control	
Commands	RF on/off External control parts
Alarms	Summary Power Supply Optical UL and DL failure Temperature
Supervision	Output power on a per-channel and per-band basis (optional)

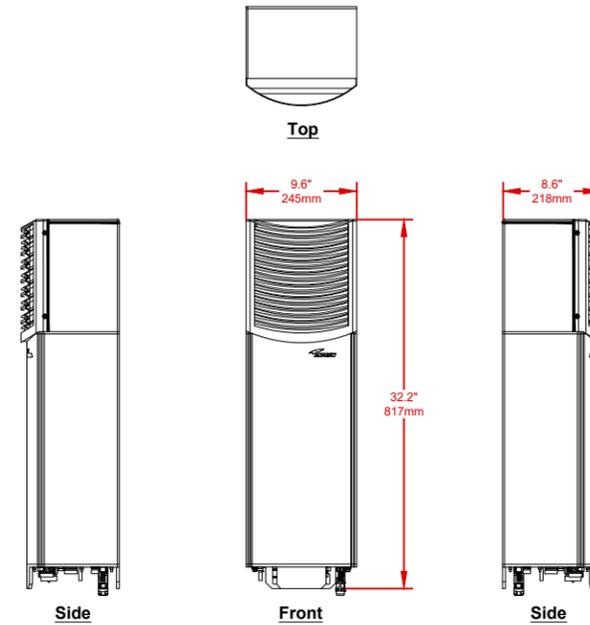
Mechanical****	
Height, width, depth mm (in)	817 x 245 x 218 (32.2 x 9.61 x 8.6)
Weight, kg (lb)	40 (88.2)

Environmental	
Operation temperature range	-33° C to +50° C
Ingress protection	RF part: IP67 Fan part: IP55

- \* Applicable to single modulation mode only
- \*\* 3db power reduction @ < 5MHz carrier bandwidth
- \*\*\* With active cooling
- \*\*\*\* Spacing required 40 mm (1.58 in) around unit
- \*\*\*\*\* With passive cooling maximum temperature +40° C

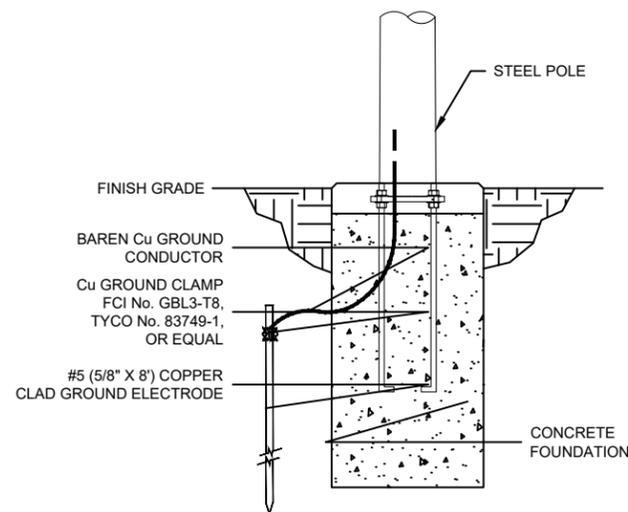
All figures are typical values.

## ANDREW ION-M17HP/19HP MULTI-BAND, MULTI-OPERATOR REMOTE OPTICAL SYSTEM



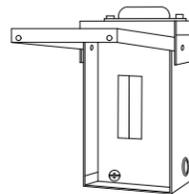
1 SCALE N.T.S.

### GROUND ROD INSTALLATION FOR STEEL POLE TYPICAL SECTION: N.T.S.



2 SCALE N.T.S.

### SQUARE D BY SCHNEIDER ELECTRIC LOAD CENTER, 70A (MODEL #Q024L70RB)



#### TECHNICAL CHARACTERISTICS

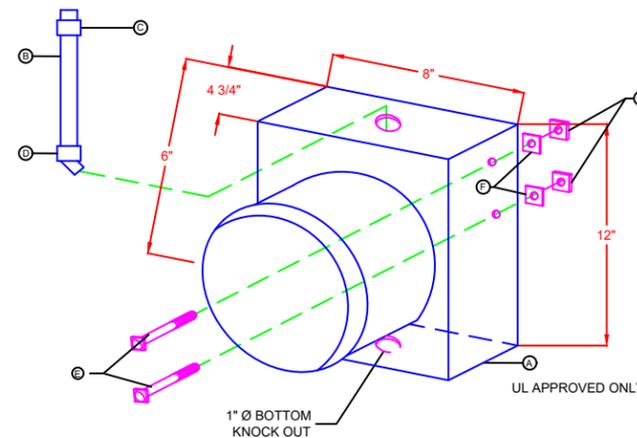
AMPERE RATING	70A
MAXIMUM SINGLE POLE CIRCUITS	4
WIDTH	4.88 INCHES
APPLICATION	DESIGNED TO MEET RESIDENTIAL, COMMERCIAL AND INDUSTRIAL REQUIREMENTS TO PROTECT ELECTRICAL SYSTEMS, EQUIPMENT AND PEOPLE.
SPACES	2
WIRE SIZE	#12 TO 3 AWG(AL) - #14 TO 4 AWG(CU)
MAXIMUM TANDEM CIRCUIT BREAKERS	2
VOLTAGE RATING	120/240VAC
WIRING CONFIGURATION	3-WIRE
PHASE	1-PHASE
DEPTH	4.00 INCHES
HEIGHT	9.38 INCHES
BUS MATERIAL	TIN PLATED ALUMINUM
COVER TYPE	SURFACE
CATALOG REFERENCE NUMBER	1100CT9901
ENCLOSURE TYPE	OUTDOOR/RAINPROOF
ENCLOSURE RATING	NEMA 3R
GROUNDING BAR	ORDER SEPARATELY
APPROVALS	UL LISTED
SHORT CIRCUIT CURRENT RATING	10KA
MAIN TYPE	FIXED - FACTORY INSTALLED MAIN LUGS

#### SHIPPING AND ORDERING

CATEGORY	00101 - LOAD CENTERS, 1 PHASE, NEMA1 & 3R, 2 - 8 CIRCUIT, TYPE QO
DISCOUNT SCHEDULE	3A
ARTICLE NUMBER	785901785132
PACKAGE QUANTITY	1
WEIGHT	5 LBS.
AVAILABILITY CODE	S
RETURNABILITY	Y

3 SCALE N.T.S.

### POWER METER



- NOTES:
- TOP KNOCK OUT WITH LIQUID FLEX 45° AND STRAIGHT CONNECTORS AVAILABLE TO POWER UTILITY CREW CONNECTION.
  - BOTTOM KNOCK OUT FOR CONNECTING TO CUSTOMER FUSE DISCONNECT BOX.
  - HEIGHT MAY BE DETERMINED BY POWER UTILITY.

PARTS LIST		CALLOUT	QTY	DESC.
METER CABINET WTR PART #	2			POLE 120/140 SINGLE PHASE
4" X 1" LIQUID TIGHT METALLIC FLEX CONDUIT				
1" Ø LIQUID TIGHT CONNECTOR STR POINT				
1" Ø LIQUID TIGHT CONNECTOR-45°				
5/16" X 1" BOLT - STAINLESS STEEL				
5/16" LOCK WASHER - STAINLESS STEEL				
5/16" NUT - STAINLESS STEEL				

4 SCALE N.T.S.

## ASG41

PHASE II  
CROWN CASTLE PROJECT NO.  
242727

CLIENT:  
**CROWN CASTLE**  
NG WEST LLC  
300 SPECTRUM CENTER DR, STE. 1200  
IRVINE, CA 92618  
www.crowncastle.com

PREPARED BY:  
**Coastal Communications**  
Telecommunications Engineering  
5841 EDISON PLACE, SUITE 200  
CARLSBAD, CA 92008  
PHONE: (760) 929-0910  
FAX: (760) 929-0936

#### PROPRIETARY INFORMATION

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**DIGALERT**  
1-800-227-2600  
CALL AT  
LEAST TWO  
DAYS BEFORE  
YOU DIG  
UNDERGROUND SERVICE ALERT  
TICKET #

ADD PED 009	07/07/16
ANTENNA CHANGE	09/20/16
REVISION / ISSUE	DATE

SITE NAME & ADDRESS:  
**ASG41**  
PALOS VERDES DR S.  
NEAR SEA CLIFF DR  
RANCHO PALOS VERDES, CA

### DETAILS & NOTES

DRAWN BY: F.B.	DRAFT DATE: 9/20/16	APPROVED BY: J.T.
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SHEET NO.  
**D-2**















