



# PTP 820/850 ACCESSORIES GUIDE

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# Microwave Antenna Guide

Microwave



**N060082D150A**  
 PTP 820 2' ANT,SP,6GHz,RFU-C  
 TYPE&UDR70 - Radiowave  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 5.725 7.125 GHz  
 Gain: 30.8 dBi  
 Polarity: Single  
 Connector: UDR70  
 Shipping: NA & CALA Only



**N060082D151A**  
 PTP 820 3' ANT,SP,6GHz,RFU-C  
 TYPE&UDR70 - Radiowave  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 5.725 7.125 GHz  
 Gain: 34.3 dBi  
 Polarity: Single  
 Connector: UDR70  
 Shipping: NA & CALA Only



**N060082D128A**  
 PTP 820 3' ANT,SP,6GHz,RFU-C  
 TYPE&Std UDR70 - Andrew  
 Dish Size: .9 m (3 ft)  
 Frequency: 5.925 – 7.125 GHz  
 Gain: 34.0 dBi  
 Polarity: Single  
 Connector: UDR70  
 Shipping: Global



**N060082D152A**  
 PTP 820 4' ANT,SP,6GHz,RFU-C  
 TYPE&UDR70 - Radiowave  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 5.725 7.125 GHz  
 Gain: 37.2 dBi  
 Polarity: Single  
 Connector: UDR70  
 Shipping: NA & CALA Only



**N060082D129A**  
 PTP 820 4' ANT,SP,6GHz,RFU-C  
 TYPE&Std UDR70 - Andrew  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 5.925 – 7.125 GHz  
 Gain: 36.0 dBi  
 Polarity: Single  
 Connector: UDR70  
 Shipping: Global



**N060080L001B**  
 SHPX4 - 4' ANT, 6W GHz with  
 Radome, Dual Pol, CPR137G  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 5.925 – 7.125 GHz  
 Gain: 36.2 dBi  
 Polarity: Dual  
 Connector: CPR137G  
 Shipping: Global

## Microwave Antenna Selection Guide

### Microwave



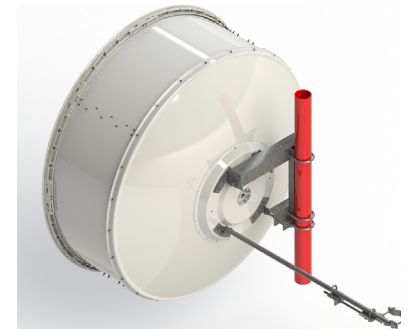
#### N060082D163A

USX6 - 6' ANT, 6W GHz with Radome, Dual Pol, CPR137G  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 5.925 – 7.125 GHz  
 Gain: 39.3 dBi  
 Polarity: Dual  
 Connector: CPR137G  
 Shipping: Global



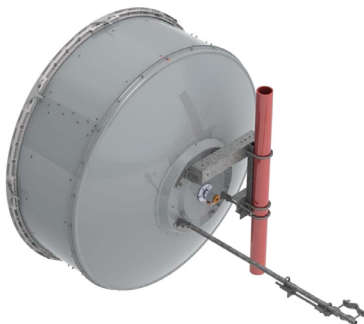
#### N060082D153A

PTP 820 6' ANT,SP,6GHz,RFU-C TYPE&UDR70 - Radiowave  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 5.725 7.125 GHz  
 Gain: 39.8 dBi  
 Polarity: Single  
 Connector: UDR70  
 Shipping: NA & CALA Only



#### N060082D132A

PTP 820 6' ANT,SP,6GHz,RFU-C TYPE&Std UDR70 - Andrew  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 5.925 – 7.125 GHz  
 Gain: 39.8 dBi  
 Polarity: Single  
 Connector: UDR70  
 Shipping: Global



#### N060080L006B

HX6 - 6' ANT, 6W GHz with radome, Dual Pol, CPR137G  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 5.925 – 7.125 GHz  
 Gain: 39.9 dBi  
 Polarity: Dual  
 Connector: CPR137G  
 Shipping: Global



#### N070082D306A

PTP 820 2' ANT,SP,7\_8GHz,RFU-C TYPE&UBR84 - Radiowave  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 7.125 8.5 GHz  
 Gain: 31.6 dBi  
 Polarity: Single  
 Connector: UBR84  
 Shipping: NA & CALA Only



#### N070082D284A

PTP 820 2' ANT,SP,7\_8GHz,RFU-C TYPE&Std UBR84 - Andrew  
 Dish Size: 10.6 m (2 ft)  
 Frequency: 7.1 – 8.5 GHz  
 Gain: 32.2 dBi  
 Polarity: Single  
 Connector: UBR84  
 Shipping: Global

## Microwave Antenna Selection Guide

### Microwave



#### N070082D307A

PTP 820 3' ANT,SP,7\_8GHz,RFU-C  
 TYPE&UBR84 - Radiowave  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 7.125 - 8.5 GHz  
 Gain: 35.1 dBi  
 Polarity: Single  
 Connector: UBR84  
 Shipping: NA & CALA Only



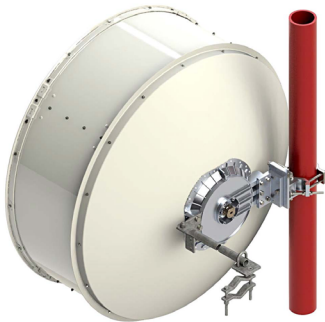
#### N070082D285A

PTP 820 3' ANT,SP,7\_8GHz,RFU-C  
 TYPE&Std UBR84 - Andrew  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 7.1 - 8.5 GHz  
 Gain: 35.8 dBi  
 Polarity: Single  
 Connector: UBR84  
 Shipping: Global



#### N070082D308A

PTP 820 4' ANT,SP,7\_8GHz,RFU-C  
 TYPE&UBR84 - Radiowave  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 7.125 - 8.5 GHz  
 Gain: 37.2 dBi  
 Polarity: Single  
 Connector: UBR84  
 Shipping: NA & CALA Only



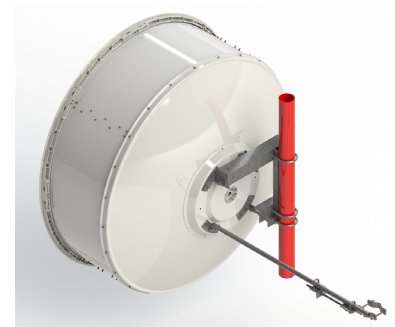
#### N070082D286A

PTP 820 4' ANT,SP,7\_8GHz,RFU-C  
 TYPE&Std UBR84 - Andrew  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 7.125 - 8.5 GHz  
 Gain: 37.7 dBi  
 Polarity: Single  
 Connector: UBR84  
 Shipping: Global



#### N070082D309A

PTP 820 6' ANT,SP,7\_8GHz,RFU-C  
 TYPE&UBR84 - Radiowave  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 7.125 - 8.5 GHz  
 Gain: 40.7 dBi  
 Polarity: Single  
 Connector: UBR84  
 Shipping: NA & CALA Only



#### N070082D288A

PTP 820 6' ANT,SP,7\_8GHz,RFU-C  
 TYPE&Std UBR84 - Andrew  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 7.125 - 8.5 GHz  
 Gain: 41.1 dBi  
 Polarity: Single  
 Connector: UBR84  
 Shipping: Global

## Microwave Antenna Selection Guide

### Microwave



#### **N110082D096A**

PTP 820 2' ANT,SP,11GHz,RFU-C  
TYPE&UBR100 - Radiowave  
Dish Size: 0.6 m (2 ft)  
Frequency: 10.7 11.7 GHz  
Gain: 34.8 dBi  
Polarity: Single  
Connector: UBR100  
Shipping: NA & CALA Only



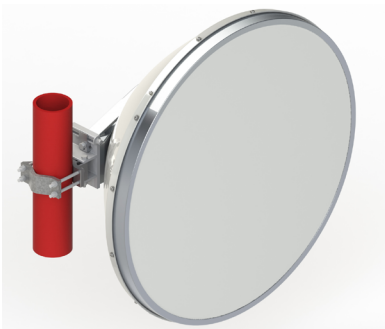
#### **N110082D072A**

PTP 820 2' ANT,SP,10\_11GHz,RFU-C  
TYPE&Std UBR100 - Andrew  
Dish Size: 0.6 m (2 ft)  
Frequency: 10.125 – 11.7 GHz  
Gain: 35.2 dBi  
Polarity: Single  
Connector: UBR100  
Shipping: Global



#### **N110082D098A**

PTP 820 3' ANT,SP,11GHz,RFU-C  
TYPE&UBR100 - Radiowave  
Dish Size: 0.9 m (3 ft)  
Frequency: 10.7 11.7 GHz  
Gain: 39 dBi  
Polarity: Single  
Connector: UBR100  
Shipping: NA & CALA Only



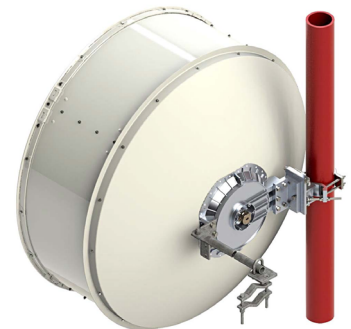
#### **N110082D073A**

PTP 820 3' ANT,SP,11GHz,RFU-C  
TYPE&Std UBR100 - Andrew  
Dish Size: 0.9 m (3 ft)  
Frequency: 10.125 – 11.7 GHz  
Gain: 39 dBi  
Polarity: Single  
Connector: UBR100  
Shipping: Global



#### **N110082D100A**

PTP 820 4' ANT,SP,11GHz,RFU-C  
TYPE&UBR100 - Radiowave  
Dish Size: 1.2 m (4 ft)  
Frequency: 10.7 11.7 GHz  
Gain: 41.4 dBi  
Polarity: Single  
Connector: UBR100  
Shipping: NA & CALA Only



#### **N110082D075A**

PTP 820 4' ANT,SP,11GHz,RFU-C  
TYPE&Std UBR100 - Andrew  
Dish Size: 1.2 m (4 ft)  
Frequency: 10.125 – 11.7 GHz  
Gain: 41 dBi  
Polarity: Single  
Connector: UBR100  
Shipping: Global

## Microwave Antenna Selection Guide

### Microwave



**C100082D049B**  
 SHPX4 - 4' ANT, 10\_11GHz  
 with Radome, Dual Pol, CPR90G  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 10 - 11.7 GHz  
 Gain: 41.3 dBi  
 Polarity: Dual  
 Connector: CPR90G  
 Shipping: Global



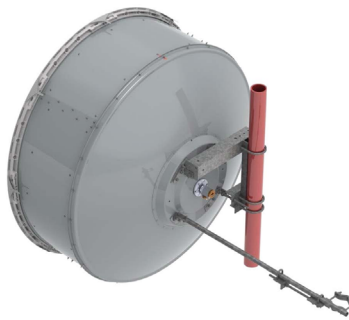
**N110082D102A**  
 PTP 820 6' ANT,SP,11GHz,RFU-C  
 TYPE&UBR100 - Radiowave  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 10.7 - 11.7 GHz  
 Gain: 43.8 dBi  
 Polarity: Single  
 Connector: UBR100  
 Shipping: NA & CALA Only



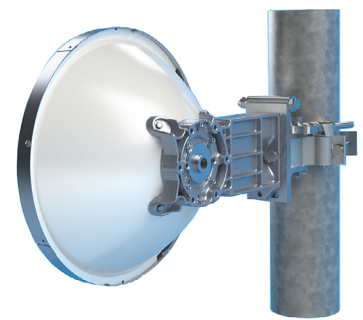
**N110082D077A**  
 PTP 820 6' ANT,SP,10\_11GHz,RFU-C  
 TYPE&Std UBR100 - Andrew  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 10 - 11.7 GHz  
 Gain: 44.8 dB  
 Polarity: Single  
 Connector: UBR100  
 Shipping: Global



**N100082D001A**  
 USX6 - 6' ANT, 11W GHz  
 with Radome, Dual Pol, CPR90G  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 10 - 11.7 GHz  
 Gain: 44.3 dBi  
 Polarity: Dual  
 Connector: CPR90G  
 Shipping: Global



**C100082D050B**  
 HX6 - 6' ANT, 10\_11 GHz  
 with Radome, Dual Pol, CPR90G  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 10 - 11.7 GHz  
 Gain: 44.3 dBi  
 Polarity: Dual  
 Connector: CPR90G  
 Shipping: Global



**N130082D043A**  
 PTP 820 1' ANT,SP,13GHz,RFU-C  
 TYPE&Std UBR120 - Andrew  
 Dish Size: 0.3 m (1ft)  
 Frequency: 12.7 - 13.25 GHz  
 Gain: 31 dBi  
 Polarity: Single  
 Connector: UBR120  
 Shipping: Global



## Microwave Antenna Selection Guide

### Microwave



#### **N130082D063A**

PTP 820 1' ANT,SP,13GHz,RFU-C  
TYPE&UBR120 - Radiowave  
Dish Size: 0.3 m (1 ft)  
Frequency: 12.7 – 13.25 GHz  
Gain: 29.7 dBi  
Polarity: Single  
Connector: UBR120  
Shipping: NA & CALA Only



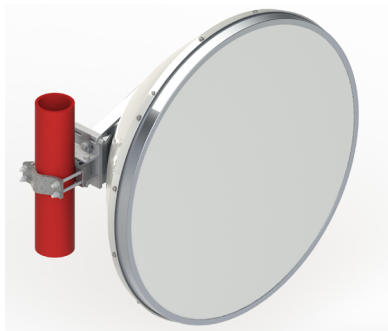
#### **N130082D045A**

PTP 820 2' ANT,SP,13GHz,RFU-C  
TYPE&Std UBR120 - Andrew  
Dish Size: 0.6 m (2 ft)  
Frequency: 12.7 – 13.25 GHz  
Gain: 36.2 dBi  
Polarity: Single  
Connector: UBR120  
Shipping: Global



#### **N130082D064A**

PTP 820 2' ANT,SP,13GHz,RFU-C  
TYPE&UBR120 - Radiowave  
Dish Size: 0.6 m (2 ft)  
Frequency: 12.7 – 13.25 GHz  
Gain: 36.1 dBi  
Polarity: Single  
Connector: UBR120  
Shipping: NA & CALA Only



#### **N130082D047A**

PTP 820 3' ANT,SP,13GHz,RFU-C  
TYPE&Std UBR120 - Andrew  
Dish Size: 0.9 m (3 ft)  
Frequency: 12.7 – 13.25 GHz  
Gain: 40.1 dBi  
Polarity: Single  
Connector: UBR120  
Shipping: Global



#### **N130082D065A**

PTP 820 3' ANT,SP,13GHz,RFU-C  
TYPE&UBR120 - Radiowave  
Dish Size: 0.9 m (3 ft)  
Frequency: 12.7 – 13.25 GHz  
Gain: 38.9 dBi  
Polarity: Single  
Connector: UBR120  
Shipping: NA & CALA Only



#### **N130082D048A**

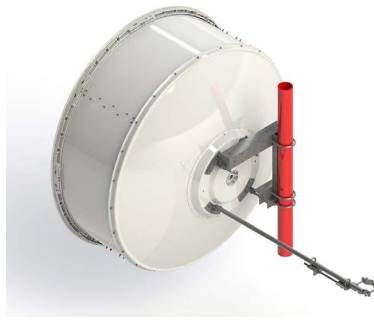
PTP 820 4' ANT,SP,13GHz,RFU-C  
TYPE&Std UBR120 - Andrew  
Dish Size: 1.2 m (4 ft)  
Frequency: 12.7 – 13.25 GHz  
Gain: 42.1 dBi  
Polarity: Single  
Connector: UBR120  
Shipping: Global

## Microwave Antenna Selection Guide

### Microwave



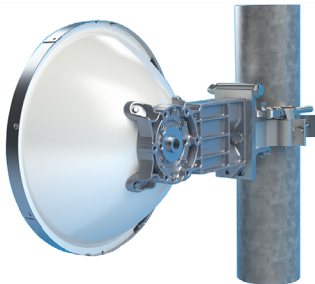
**N130082D066A**  
 PTP 820 4' ANT,SP,13GHz,RFU-C  
 TYPE&UBR120 - Radiowave  
 Dish Size: 0.12 m (4 ft)  
 Frequency: 12.7 – 13.25 GHz  
 Gain: 42 dBi  
 Polarity: Single  
 Connector: UBR120  
 Shipping: NA & CALA Only



**N130082D050A**  
 PTP 820 6' ANT,SP,13GHz,RFU-C  
 TYPE&Std UBR120 - Andrew  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 12.7 – 13.25 GHz  
 Gain: 45.2 dBi  
 Polarity: Single  
 Connector: UBR120  
 Shipping: Global



**N130082D067A**  
 PTP 820 6' ANT,SP,13GHz,RFU-C  
 TYPE&UBR120 - Radiowave  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 12.7 – 13.25 GHz  
 Gain: 44.6 dBi  
 Polarity: Single  
 Connector: UBR120  
 Shipping: NA & CALA Only



**N150082D065A**  
 PTP 820 1' ANT,SP,15GHz,RFU-C  
 TYPE&Std UBR140 - Andrew  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 14.25 - 15.35 GHz  
 Gain: 32.6 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: Global



**N150082D085A**  
 PTP 820 1' ANT,SP,15GHz,RFU-C  
 TYPE&UBR140 - Radiowave  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 14.25 - 15.35 GHz  
 Gain: 31.3 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: NA & CALA Only



**N150082D086A**  
 PTP 820 2' ANT,SP,15GHz,RFU-C  
 TYPE&UBR140 - Radiowave  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 14.25 - 15.35 GHz  
 Gain: 37.3 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: NA & CALA Only



## Microwave Antenna Selection Guide

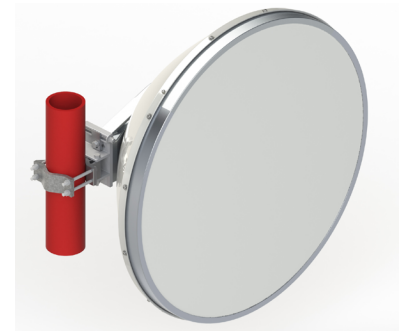
### Microwave



**N150082D067A**  
 PTP 820 2' ANT,SP,15GHz,RFU-C  
 TYPE&Std UBR140 - Andrew  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 14.4 - 15.35 GHz  
 Gain: 37.2 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: Global



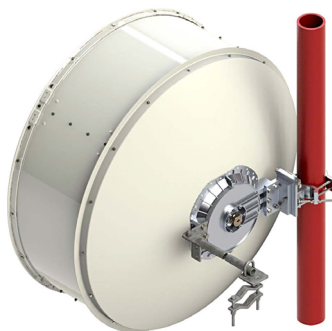
**N150082D087A**  
 PTP 820 3' ANT,SP,15GHz,RFU-C  
 TYPE&UBR140 - Radiowave  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 14.25 - 15.35 GHz  
 Gain: 40.2 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: NA & CALA Only



**N150082D069A**  
 PTP 820 3' ANT,SP,15GHz,RFU-C  
 TYPE&Std UBR140 - Andrew  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 14.4 - 15.35 GHz  
 Gain: 41.4 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: Global



**N150082D088A**  
 PTP 820 4' ANT,SP,15GHz,RFU-C  
 TYPE&UBR140 - Radiowave  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 14.25 - 15.35 GHz  
 Gain: 42.7 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: NA & CALA Only



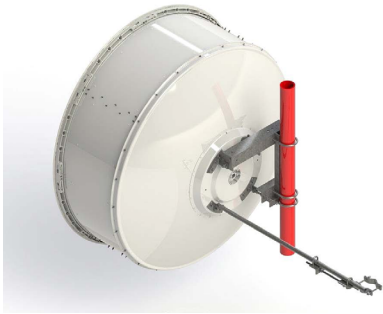
**N150082D070A**  
 PTP 820 4' ANT,SP,15GHz,RFU-C  
 TYPE&Std UBR140 - Andrew  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 14.25 - 15.35 GHz  
 Gain: 43.1 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: Global



**N150082D089A**  
 PTP 820 6' ANT,SP,15GHz,RFU-C  
 TYPE&UBR140 - Radiowave  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 14.25 - 15.35 GHz  
 Gain: 46.2 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: NA & CALA Only

## Microwave Antenna Selection Guide

### Microwave



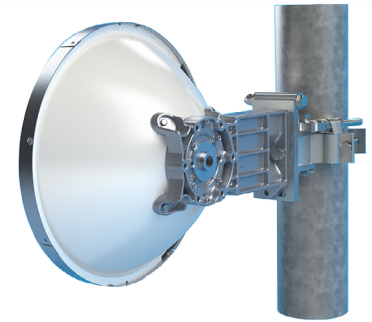
#### **N150082D072A**

PTP 820 6' ANT,SP,15GHz,RFU-C  
 TYPE&Std UBR140 - Andrew  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 14.25 - 15.35 GHz  
 Gain: 46.5 dBi  
 Polarity: Single  
 Connector: UBR140  
 Shipping: Global



#### **N180082D051A**

PTP 820 1' ANT,SP,18GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 34.4 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



#### **N180082D031A**

PTP 820 1' ANT,SP,18GHz,RFU-C  
 TYPE&Std UBR220 – Andrew  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 34.5 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



#### **N180082D052A**

PTP 820 2' ANT,SP,18GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 39 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



#### **N180082D033A**

PTP 820 2' ANT,SP,18GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 39.1 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



#### **N180082D053A**

PTP 820 3' ANT,SP,18GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 43.7 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only

## Microwave Antenna Selection Guide

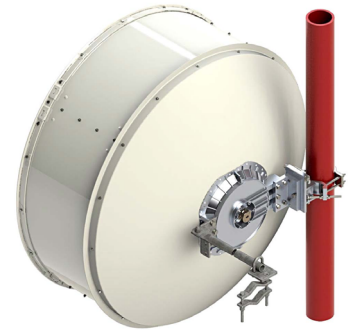
### Microwave



**N180082D035A**  
 PTP 820 3' ANT,SP,18GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 43.7 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



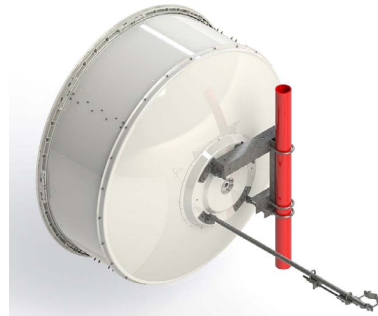
**N180082D054A**  
 PTP 820 4' ANT,SP,18GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 44.9 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



**N180082D036A**  
 PTP 820 4' ANT,SP,18GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 45.1 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



**N180082D055A**  
 PTP 820 6' ANT,SP,18GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 48.5 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



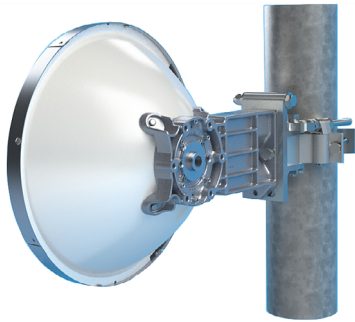
**N180082D038A**  
 PTP 820 6' ANT,SP,18GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 17.7 19.7 GHz  
 Gain: 48.4 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



**N230082D041A**  
 PTP 820 1' ANT,SP,23GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 21.2 23.6 GHz  
 Gain: 35.5 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only

## Microwave Antenna Selection Guide

### Microwave



#### N230082D021A

PTP 820 1' ANT,SP,23GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 21.2 23.6 GHz  
 Gain: 35.9 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



#### N230082D042A

PTP 820 2' ANT,SP,23GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 21.2 23.6 GHz  
 Gain: 40.7 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



#### N230082D023A

PTP 820 2' ANT,SP,23GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 21.2 23.6 GHz  
 Gain: 41.0 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



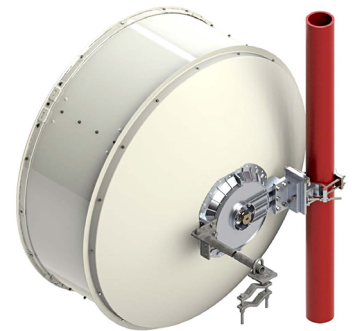
#### N230082D043A

PTP 820 3' ANT,SP,23GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 10.9 m (3 ft)  
 Frequency: 21.2 23.6 GHz  
 Gain: 44.2 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



#### N230082D025A

PTP 820 3' ANT,SP,23GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 21.2 23.6 GHz  
 Gain: 45.0 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global

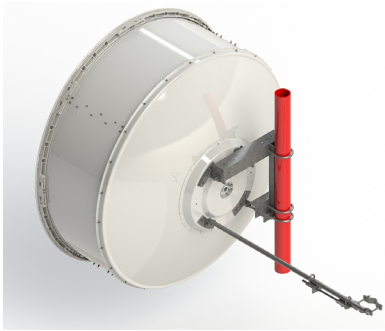


#### N230082D026A

PTP 820 4' ANT,SP,23GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 21.2 23.6 GHz  
 Gain: 47.0 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global

## Microwave Antenna Selection Guide

### Microwave



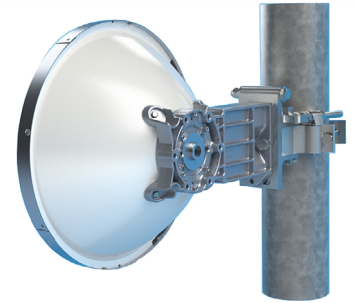
#### **N230082D028A**

PTP 820 6' ANT,SP,23GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 21.2 - 23.6 GHz  
 Gain: 49.9 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



#### **N230082D045A**

PTP 820 6' ANT,SP,23GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 21.2 - 23.6 GHz  
 Gain: 49.4 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



#### **N260082D017A**

PTP 820 1' ANT,SP,26GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 24.25 - 26.5 GHz  
 Gain: 37.1 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



#### **N260082D034A**

PTP 820 1' ANT,SP,26GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 24.25 - 26.5 GHz  
 Gain: 36.5 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



#### **N260082D019A**

PTP 820 2' ANT,SP,26GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 24.25 - 26.5 GHz  
 Gain: 42.5 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



#### **N260082D035A**

PTP 820 2' ANT,SP,26GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 24.25 - 26.5 GHz  
 Gain: 41.5 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only

## Microwave Antenna Selection Guide

### Microwave



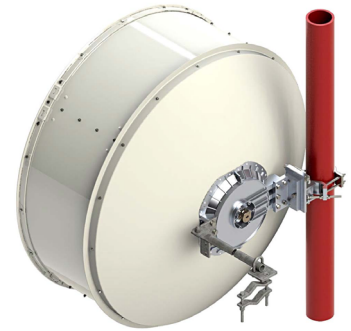
**N260082D021A**

PTP 820 3' ANT,SP,26GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 24.25 - 26.5 GHz  
 Gain: 46.2 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



**N260082D036A**

PTP 820 3' ANT,SP,26GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 0.9 m (3 ft)  
 Frequency: 24.25 - 26.5 GHz  
 Gain: 45 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



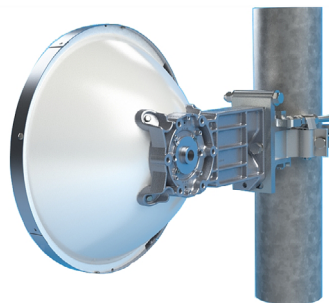
**N260082D022A**

PTP 820 4' ANT,SP,26GHz,RFU-C  
 TYPE&Std UBR220 - Andrew  
 Dish Size: 1.2 m (4 ft)  
 Frequency: 24.25 - 26.5 GHz  
 Gain: 47.8 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: NA & CALA Only



**N260082D037A**

PTP 820 4' ANT,SP,26GHz,RFU-C  
 TYPE&UBR220 - Radiowave  
 Dish Size: 1.8 m (6 ft)  
 Frequency: 24.25 - 26.5 GHz  
 Gain: 47.2 dBi  
 Polarity: Single  
 Connector: UBR220  
 Shipping: Global



**N280082D029A**

PTP 820 1' ANT,SP,28GHz,RFU-C  
 TYPE&Std UBR320 - Andrew  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 27.5 - 29.5 GHz  
 Gain: 38.6 dBi  
 Polarity: Single  
 Connector: UBR320  
 Shipping: Global



**N280082D044A**

PTP 820 1' ANT,SP,28GHz,RFU-C  
 TYPE&UBR320 - Radiowave  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 27.3 - 31.3 GHz  
 Gain: 37 dBi  
 Polarity: Single  
 Connector: UBR320  
 Shipping: NA & CALA Only



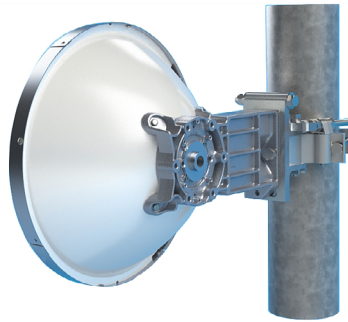
## Microwave Antenna Selection Guide

### Microwave



#### **N280082D031A**

PTP 820 2' ANT,SP,28GHz,RFU-C  
 TYPE&Std UBR320 - Andrew  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 27.5 - 29.5 GHz  
 Gain: 43.2 dBi  
 Polarity: Single  
 Connector: UBR320  
 Shipping: Global



#### **N320082D013A**

PTP 820 1' ANT,SP,32GHz,RFU-C  
 TYPE&Std UBR320 - Andrew  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 31.8 - 33.4 GHz  
 Gain: 39.1 dBi  
 Polarity: Single  
 Connector: UBR320  
 Shipping: Global



#### **N320082D027A**

PTP 820 1' ANT,SP,32GHz,RFU-C  
 TYPE&UBR320 - Radiowave  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 31.3 - 33.4 GHz  
 Gain: 38.1 dBi  
 Polarity: Single  
 Connector: UBR320  
 Shipping: NA & CALA Only



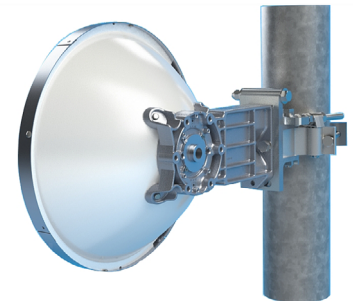
#### **N320082D015A**

PTP 820 2' ANT,SP,32GHz,RFU-C  
 TYPE&Std UBR320 - Andrew  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 31.0 - 33.4 GHz  
 Gain: 44 dBi  
 Polarity: Single  
 Connector: UBR320  
 Shipping: Global



#### **N320082D028A**

PTP 820 2' ANT,SP,32GHz,RFU-C  
 TYPE&UBR320 - Radiowave  
 Dish Size: 0.6 m (2 ft)  
 Frequency: 31.3 - 33.4 GHz  
 Gain: 43.1 dBi  
 Polarity: Single  
 Connector: UBR320  
 Shipping: NA & CALA Only



#### **N380082D037A**

PTP 820 1' ANT,SP,38GHz,RFU-C  
 TYPE&Std UBR320 - Andrew  
 Dish Size: 0.3 m (1 ft)  
 Frequency: 37.0 - 40.0 GHz  
 Gain: 40.5 dBi  
 Polarity: Single  
 Connector: UBR320  
 Shipping: Global

## Microwave Antenna Selection Guide

### Microwave



#### **N380082D052A**

PTP 820 1' ANT,SP,38GHz,RFU-C  
TYPE&UBR320 - Radiowave  
Dish Size: 0.6 m (2 ft)  
Frequency: 37.0 - 40.0 GHz  
Gain: 39.7 dBi  
Polarity: Single  
Connector: UBR320  
Shipping: NA & CALA Only



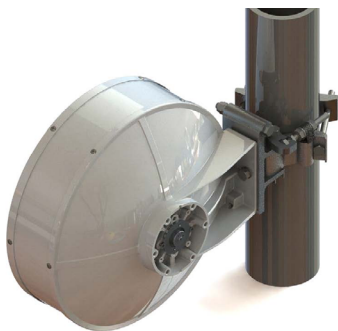
#### **N380082D039A**

PTP 820 2' ANT,SP,38GHz,RFU-C  
TYPE&Std UBR320 - Andrew  
Dish Size: 0.9 m (3 ft)  
Frequency: 37.0 - 40.0 GHz  
Gain: 45.8 dBi  
Polarity: Single  
Connector: UBR320  
Shipping: Global



#### **N380082D053A**

PTP 820 2' ANT,SP,38GHz,RFU-C  
TYPE&UBR320 - Radiowave  
Dish Size: 1.2 m (4 ft)  
Frequency: 37.0 - 40.0 GHz  
Gain: 44.7 dBi  
Polarity: Single  
Connector: UBR320  
Shipping: NA & CALA Only



#### **N800082D005A**

PTP 820 1' ANT,SP,80GHz, RFU-E  
TYPE & UG387 - Andrew  
Dish Size: 1.8 m (6 ft)  
Frequency: 71.0 - 86.0 GHz  
Gain: 47.0 dBi  
Polarity: Single  
Connector: UG387  
Shipping: Global



#### **N800082D009A**

PTP 820 2' ANT,SP,80GHz, RFU-E  
TYPE & UG387 - Andrew  
Dish Size: 0.6 m (2 ft)  
Frequency: 71.0 - 86.0 GHz  
Gain: 51.5 dBi  
Polarity: Single  
Connector: UG387  
Shipping: Global



#### **N800082D010A**

PTP 820 2' ANT,DP,18 & 80 GHz  
multi-band  
Dish Size: 0.6 m (2 ft)  
Frequency: 17.7 – 19.7 GHz,  
71 – 76 GHz, 81 – 86 GHz  
Gain: 50 – 51 dBi  
Polarity: Dual  
Connector: CIRC/WR12  
Shipping: Global

## Microwave Antenna Selection Guide

### Microwave



#### **N800082D006A**

PTP 820 2' ANT,SP,18 & 80 GHz  
multi-band

Dish Size: 0.6 m (2 ft)

Frequency: 17.7 – 19.7 GHz,  
71 – 76 GHz, 81 – 86 GHz

Gain: 49 – 50 dBi

Polarity: Single

Connector: UBR220/WR12

Shipping: Global



#### **N800082D011A**

PTP 820 2' ANT,DP,23 & 80 GHz  
multi-band

Dish Size: 0.6 m (2 ft)

Frequency: 21.2 – 23.6 GHz,  
71 – 76, 81- 86 GHz

Gain: 50 – 51 dBi

Polarity: Dual

Connector: CIRC/WR12

Shipping: Global



#### **N800082D007A**

PTP 820 2' ANT,SP,23 & 80 GHz  
multi-band

Dish Size: 0.6 m (2 ft)

Frequency: 21.2 – 23.6 GHz,  
71 – 76, 81- 86 GHz

Gain: 49 – 50 dBi

Polarity: Single

Connector: UBR220/WR12

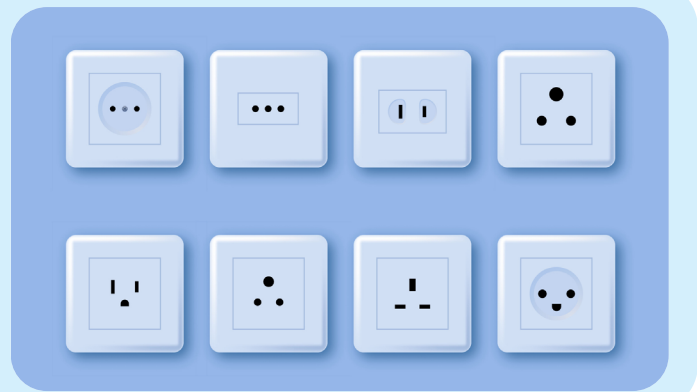
Shipping: Global

# Power Accessories

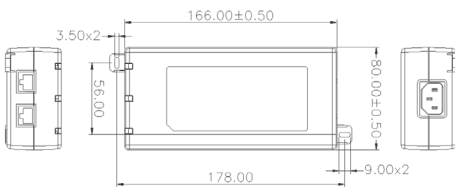
## Power Supplies

### QUICK LOOK:

Power supply accessories for various Cambium Networks products along with product power requirements and power supply compatibility matrix.



### Power Supply



#### N00082L164A

PTP 820C INDOOR AC POE INJECTOR, 90W

Input connectors: C14

Output connectors: RJ45

Input power: AC

Output power: DC

Watt: 90W

Volts: 56V

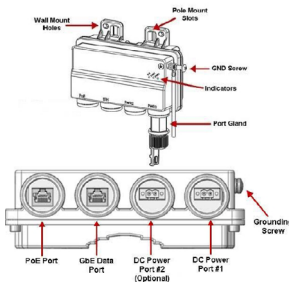
Op efficiency: Level 6

Indoor/ OD: Indoor

Temp: (-10°C to 40°C)

IP Rating: X

Ethernet speed: 1G



#### N00082L022A

PTP 820 PoE Injector all outdoor, redundant DC input, +24VDC support

Input Connector: Direct Wire

Output connectors: RJ45

Input power: DC

Output power: DC

Watt: 90W

Volts: 56V

Op efficiency: Level 6

Indoor/ OD: Outdoor

Temp: -45°C to +60°C

IP Rating: IP66

Ethernet speed: 1G



#### C00065L002D

AC+DC Enhanced Power Injector 58V

Input Connector: DCin screw terminals /2-wire AC inlet; IEC60320 C8

Output connectors: RJ45 / DCout screw terminals

Input power: AC + DC

Output power: DC

Watt: 100W

Volts: 58V

Op efficiency: Level 6

Indoor/ OD: ID/ OD

Temp: (-40°C to +50°C)

IP Rating: IP20

Ethernet speed: 1G

# SFP Guide

## SFP Module Selection Guide

### PTP 8xx SFPs



#### **N000082L213A**

PTP 820 SFP, single fiber, 1490nm Tx/1310nm Rx, SM, EXT TEMP

Speed: 1 G

Mode: Single

Wavelength: 1490nm TX & 1310 RX

Spare Glands: N000082L014A

Product Support: PTP 820

Operating Temperature: (-10°C to +70°C)



#### **N000082L214A**

PTP 820 SFP, single fiber, 1310nm Tx/1490nm Rx, SM, EXT TEMP

Speed: 1 G

Mode: Single

Wavelength: 1310nm TX & 1490 RX

Spare Glands: N000082L014A

Product Support: PTP 820

Operating Temperature: (-10°C to +70°C)



#### **N800082L010A**

PTP 820 CSFP, 1310nm Tx/1490nm Rx, SM, EXT TEMP

Speed: 1 G

Mode: Single

Wavelength: 1310nm TX & 1490 RX

Spare Glands: N000082L014A

Product Support: PTP 820

Operating Temperature: (-40°C to +85°C)



#### **N800082L011A**

PTP 820 CSFP, 1490nm Tx/1310nm Rx, SM, EXT TEMP

Speed: 1 G

Mode: Single

Wavelength: 1490nm TX & 1310 RX

Spare Glands: N000082L014A

Product Support: PTP 820

Operating Temperature: (-40°C to +85°C)

## SFP Module Selection Guide

### PTP 8xx SFPs



#### **N800082L012A**

PTP 820 SFP+, 850nm,MM, 10Gbit, Industrial Grade

Speed: 10 G

Mode: Multi

Wavelength: 850nm

Spare Glands: N000082L014A

Product Support: PTP 820

Operating Temperature: (-40°C to +85°C )



#### **N800082L013A**

PTP 820/850 SFP+, 1310nm,SM, 10Gbit, Industrial Grade

Speed: 10 G

Mode: Single

Wavelength: 1310nm

Spare Glands: N000082L014A

Product Support: PTP 820 / PTP 850

Operating Temperature: (-40°C to +85°C )



# Cable Guide

## Cable Selection Guide

### RJ45

Name	Description	Length (meters)	Type
<b>WB3176A</b>	328 ft (100 m) Reel Outdoor Copper Clad CAT5E (Recommended for PTP)	100	CAT5E
<b>N000000L155A</b>	CAT6A Outdoor Cable, 100m	100	CAT6A
<b>WB3175A</b>	1000 ft Reel Outdoor Copper Clad CAT5E (Recommended for PTP)	304.8	CAT5E
<b>N000082L172B</b>	CAT6A Outdoor Cable, 305m	305	CAT6A

### Coaxial

Name	Description	Length (meters)
<b>30010194001</b>	50 Ohm Braided Coaxial Cable - 75 meter	75
<b>30010195001</b>	50 Ohm Braided Coaxial Cable - 500 meter	500

### DC Cable

Name	Description	Length (meters)
<b>N000082L181A</b>	PTP 820 Outdoor DC Cable, 10AWG, 150m, M28 Gland to Open End	150
<b>N000082L182A</b>	PTP 820 Outdoor DC Cable, 10AWG, 200m, M28 Gland to Open End	200
<b>N000082L183A</b>	PTP 820 Outdoor DC Cable, 10AWG, 250m, M28 Gland to Open End	250
<b>N000082L184A</b>	PTP 820 Outdoor DC Cable, 10AWG, 300m, M28 Gland to Open End	300

### Optical

Name	Description	Length (meters)	Mode
<b>N000082L215A</b>	Optical CABLE,MM, 1m	1	Multi Mode fiber
<b>N000082L187A</b>	Optical CABLE,SM, 10m	10	Single Mode Fiber
<b>N000082L192A</b>	Optical CABLE,MM, 10m	10	Multi Mode fiber
<b>N000082L139A</b>	Optical CABLE,SM, 30m	30	Single Mode Fiber
<b>N000082L194A</b>	Optical CABLE,MM, 30m	30	Multi Mode fiber
<b>N000082L205A</b>	Optical Cable,MPO(F)/MPO(F),4P,Type B,30m,MM,OM4,M28 Gland,ARM	30	Multi Mode fiber
<b>N000082L140A</b>	Optical CABLE,SM, 50m	50	Single Mode Fiber
<b>N000082L206A</b>	Optical Cable,MPO(F)/MPO(F),4P,Type B,50m,MM,OM4,M28 Gland,ARM	50	Multi Mode fiber
<b>N000082L141A</b>	Optical CABLE,SM, 80m	80	Single Mode Fiber
<b>N000082L196A</b>	Optical CABLE,MM, 80m	80	Multi Mode fiber
<b>N000082L207A</b>	Optical Cable,MPO(F)/MPO(F),4P,Type B,80m,MM,OM4,M28 Gland,ARM	80	Multi Mode fiber
<b>N000082L142A</b>	Optical CABLE,SM, 100m	100	Single Mode Fiber
<b>N000082L208A</b>	Optical Cable,MPO(F)/MPO(F),4P,Type B,100m,MM,OM4,M28 Gland,ARM	100	Multi Mode fiber
<b>N000082L143A</b>	Optical CABLE,SM, 150m	150	Single Mode Fiber
<b>N000082L198A</b>	Optical CABLE,MM, 150m	150	Multi Mode fiber
<b>N000082L209A</b>	Optical Cable,MPO(F)/MPO(F),4P,Type B,150m,MM,OM4,M28 Gland,ARM	150	Multi Mode fiber

## Cable Selection Guide

### Miscellaneous

Name	Description
7009304001	Hoisting Grip for CNT-400 cable
C000082L153A	PTP 820G Fast Ethernet Protection Y-cable, 1.34m, Cat5E
C000082L154A	PTP 820G TDM Protection Y cable, 0.6m, 120 ohm
C000082L155A	PTP820G Splitter cable for protection and management, 1.34m, CAT5E
N000000L127A	CABLE ASSY, SHIELDED, 4C STEREO PLUG -3.5MM TO RJ45
N000082L146A	PTP 820 Fiber 1+1 Splitter, SM
N000082L147A	PTP 820 Fiber Adapter
N000081L008A	IF cable for PTP810 MMU and IRFU
N000082L023A	PTP 820 16E1 cable MDR68-RJ45 3M,LA,cross
N000082L024A	PTP 820 16E1 cable open-end, 3M
N000082L025A	PTP 820 16T1 cable MDR68-RJ45 3M,LA,cross
N000082L026A	PTP 820 16T1 cable open-end, 3M
N000082L057A	PTP 820 External Alarms open cable 2.5m
N000082L060A	PTP 820C MIMO or Prot management cable 10m
N000082L061A	PTP 820C MIMO or Prot management cable 1m
N000082L063A	PTP 820C,CABLE,SFP,4x4MIMO_DATA_SHARING_KIT_10M
N000082L122A	PTP 820G Ethernet split cable for Management
N000082L136A	PTP 820C/S MIMO or Prot management cable 20m
N000082L138A	PTP 820C,CABLE,SFP,4x4MIMO_DATA_SHARING_KIT_20M
N000082L159A	IF cable for PTP820G IDU and RFU-A
N000082L201A	PTP 850E Extension Cable for protection and XPIC
N000082L202A	PTP 850E Clock sharing Cable for XPIC
N000082L212A	Optical Cable, Dual LC to LC/LC Split, 5.3M, SM, 3 x M28 Gland, outdoor
RDN5785A	3 M (9.8 FT) SUPERFLEX RF LOW LOSS JUMPER CABLE

### Glands

Name	Description
N000082L014A	PTP 820 Glands_x5_KIT
N000085L001A	PTP 850 M28 Glands extender

### Connector

Name	Description	Type
01010589001	RF CONNECTOR,N,MALE,RIGHT ANGLE FOR CNT-400 CABLE	N-Type Male
09010091001	RF CONNECTOR,N,MALE,STRAIGHT FOR CNT-400 CABLE	N-Type Male
1010589001	RF CONNECTOR,N,MALE,RIGHT ANGLE FOR CNT-400 CABLE	N-Type Male
9010091001	RF CONNECTOR,N,MALE,STRAIGHT FOR CNT-400 CABLE	N-Type Male
N000081L005A	TNC Male for CNT-400 braided cable	TNC Male
N000081L006A	TNC Male Right Angle for CNT-400 braided cable	TNC Male
N000082L174B	RJ45 Connector for CAT6A Cable, Qty 10	RJ 45

# LPU and Grounding Guide

## Lightning Protection Units and Grounding Selection Guide

### Lightning Protection Units



#### **C000000L033A**

Gigabit Surge Suppressor (56V), 10/100/1000 BaseT

Volts: 56V

Type: DC PoE

Env Protection: IP54

Transfer Rate: 1000

Connectors: Two x RJ-45

Protection Mode: Line-to-line and line-to-ground

Surge Rating: 172A, 10/1000us(L-G) | 230A, 5/320us (EN61000-4-5)

Mounting: Pole mount or wall mount

Operating Temperature: -40°C to +60°C

Grounding Accessories: M5-Termination ring included, C000000L138A



#### **WB3657A**

LPU End Kit PTP 800/820

Volts: 56V

Type: DC Power

Env Protection: IP67

Connectors: Two x N-Type Female

RF coaxial connector

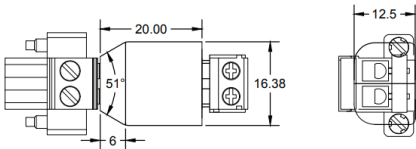
Protection Mode: Line-to-line and line-to-ground

Surge Rating: 20kA 8/20us (EN61000-4-5)

Mounting: Pole mount

Operating Temperature: -40°C to +60°C

Grounding Accessories: C000000L138A



#### **N000082L185A**

PTP 820 DC surge suppressor

Volts: 56V

Type: DC Power

Env Protection: IP54

Connectors: Screw Terminals

Protection Mode: Line-to-line and line-to-ground

Surge Rating: 144.9A 10/1000us

Mounting: Pole mount or wall mount

Operating Temperature: -40°C to +60°C



#### **N000082D012A**

PTP 820 Gas Tube Surge Arrestor End Kit

Volts: 56V

Type: DC Power

Env Protection: IP67

Connectors: Two x N-Type Female

RF coaxial connector

Protection Mode: Line-to-line and line-to-ground

Surge Rating: 20kA 8/20 us

Mounting: Pole mount or wall mount

Operating Temperature: -30°C to +70°C

## LPU and Grounding Selection Guide

### Grounding

Name	Description
1010419001	Coaxial Cable Grounding Kits for 1/4" and 3/8" Cable
C000000L138A	Grounding Cable, 0.6m with M6 ring to M6 ring
N000082L116B	Grounding Cable, 1m with M6 ring to M6 ring
N000082L173A	Grounding Kit for CAT5E F/UTP 8mm and Cat6A Cable
N000082L173A	Grounding Kit for CAT5E F/UTP 8mm and Cat6A Cable
WB3616H	Coaxial Cable Installation Assembly Kit (W/O LPU End Kit)
7009343001	Grounding Kit for waveguide EWP52 and EWP63
7009343002	Grounding Kit for waveguide EWP90

### ABOUT CAMBIUM NETWORKS

Cambium Networks empowers millions of people with wireless connectivity worldwide. Its wireless portfolio is used by commercial and government network operators as well as broadband service providers to connect people, places and things. With a single network architecture spanning fixed wireless and Wi-Fi, Cambium Networks enables operators to achieve maximum performance with minimal spectrum. End-to-end cloud management transforms networks into dynamic environments that evolve to meet changing needs with minimal physical human intervention. Cambium Networks empowers a growing ecosystem of partners who design and deliver gigabit wireless solutions that just work.

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