

**Attenuators, Variable, Calibrated - Series 020**

| Model    | WG Size        | Frequency band       | Flange            | VSWR     | Insertion Loss | QTY |
|----------|----------------|----------------------|-------------------|----------|----------------|-----|
| 21020    | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260            | 1.07 MAX | 0.35 dB MAX    | 1   |
| 22020    | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UBR320            | 1.07 MAX | 0.4 dB MAX     | 3   |
| 24020    | WG24 WR19 R500 | 39.3 GHz to 60 GHz   | UG-383/U-MOD      | 1.07 MAX | 0.20 dB MAX    | 1   |
| 27020-AB | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod Comp | 1.1 MAX  | 0.4 dB MAX     | 1   |
| 32020    | WG32 -- R2600  | 217 GHz to 330 GHz   | UG-387/U-Mod-PF   | 1.2 MAX  | 0.7 dB MAX     | 2   |
| 570020   | WM-570 --- --- | 330 GHz to 500 GHz   | UG-387/U-MOD-PF   | 1.33 MAX | 1.5 dB MAX     | 1   |

**Attenuator, Fixed - Series 081**

| Model    | WG Size        | Frequency band       | Flange      | Attenuation Value | VSWR    | QTY |
|----------|----------------|----------------------|-------------|-------------------|---------|-----|
| 15081-10 | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84       | 10 dB +/- 1.0 dB  | 1.1 MAX | 1   |
| 17081-10 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120      | 10 dB +/- 1.0 dB  | 1.1 MAX | 6   |
| 17081-40 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120      | 40 dB +/- 4.0 dB  | 1.2 MAX | 4   |
| 18081-20 | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140      | 20 dB +/- 2 dB    | 1.1 MAX | 3   |
| 20081-30 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220      | 30 dB +/- 3 dB    | 1.2 MAX | 1   |
| 20081-06 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220      | 6 dB +/- 0.6 dB   | 1.1 MAX | 2   |
| 22081-03 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U    | 3 dB +/- 0.3 dB   | 1.1 MAX | 2   |
| 22081-10 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | PBR320      | 10 dB +/- 1.0 dB  | 1.1 MAX | 5   |
| 22081-20 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U    | 20 dB +/- 2 dB    | 1.1 MAX | 3   |
| 26081-10 | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U    | 10 dB +/- 1 dB    | 1.1 MAX | 2   |
| 26081-20 | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U-AC | 20 dB +/- 2 dB    | 1.1 MAX | 1   |

**Attenuator, Precision, Rotary - Series 110**

| Model | WG Size        | Frequency band     | Flange      | VSWR     | Insertion Loss | QTY |
|-------|----------------|--------------------|-------------|----------|----------------|-----|
| 17110 | WG17 WR75 R120 | 9.84 GHz to 15 GHz | UBR120      | 1.15 MAX | 0.25 dB MAX    | 1   |
| 26110 | WG26 WR12 R740 | 60.5 GHz to 92 GHz | UG-387/U-AC | 1.15 MAX | 1.3 dB MAX     | 1   |
| 32110 | WG32 -- R2600  | 217 GHz to 330 GHz | 1785-2a     | 1.5 MAX  | 3.0 dB MAX     | 1   |

**Attenuator, Fixed, Precision, Offset Ports - Series 582**

| Model    | WG Size        | Frequency band      | Flange (port 1) | Flange (port 2) | Attenuation Value | Power (mean or cw) | VSWR     | QTY |
|----------|----------------|---------------------|-----------------|-----------------|-------------------|--------------------|----------|-----|
| 27582-20 | WG27 WR10 R900 | 73.8 GHz to 112 GHz | UG-387/U-Mod    | UG-387/U-Mod    | 20 dB             | 300 mW MAX         | 1.10 MAX | 1   |

**Attenuator, Fixed - Series 587**

| Model    | WG Size        | Frequency band   | Flange     | Attenuation Value | VSWR    | QTY |
|----------|----------------|------------------|------------|-------------------|---------|-----|
| 26587-30 | WG26 WR12 R740 | 60 GHz to 92 GHz | UG387/U-AC | 30 dB             | 1.2 MAX | 6   |

**Directional Coupler, Multihole - Series 131**

| Model    | WG Size        | Frequency band       | Flange | Port 1 to Port 3 Coupling Value | QTY |
|----------|----------------|----------------------|--------|---------------------------------|-----|
| 15131-40 | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84  | 40 dB                           | 1   |
| 16131-40 | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz  | UBR100 | 40 dB                           | 1   |
| 17131-40 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120 | 40 dB                           | 1   |
| 20131-03 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220 | 3 dB                            | 1   |
| 20131-30 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220 |                                 | 1   |
| 21131-40 | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260 | 40 dB                           | 1   |

## Directional Coupler, Multihole - Series 136

| Model          | WG Size        | Frequency band       | Flange          | Port 1 to Port 3 Coupling Value | Directivity | Secondary arm VSWR | QTY |
|----------------|----------------|----------------------|-----------------|---------------------------------|-------------|--------------------|-----|
| 23136-03       | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U-AC     | 3 dB                            | 40 dB MIN   | 1.10 MAX           | 2   |
| 24136-10       | WG24 WR19 R500 | 39.3 GHz to 59.7 GHz | UG-383/U-Mod-AC | 10 dB                           | 38 dB MIN   | 1.10 MAX           | 1   |
| 24136-03       | WG24 WR19 R500 | 39.3 GHz to 59.7 GHz | UG-383/U-Mod-AC | 3 dB                            | 38 dB MIN   | 1.10 MAX           | 2   |
| 25136-03       | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-AC     | 3 dB                            | 38 dB MIN   | 1.10 MAX           | 1   |
| 25136-20       | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U        | 20 dB                           | 38 dB MIN   | 1.10 MAX           | 1   |
| 25136-30       | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PD     | 30 dB                           | 38 dB MIN   | 1.10 MAX           | 1   |
| 25136-40       | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PD     | 40 dB                           | 35 dB MIN   | 1.10 MAX           | 1   |
| 26136-10       | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U        | 10 dB                           | 38 dB MIN   | 1.10 MAX           | 1   |
| 26136-20       | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U-AC     | 20 dB                           | 38 dB MIN   | 1.10               | 1   |
| 27136-06       | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-AC | 6 dB                            | 36 dB MIN   | 1.10 MAX           | 1   |
| 28136-06       | WG28 WR8 R1200 | 92.3 GHz to 140 GHz  | UG-387/U-Mod    | 6 dB                            | 34 dB MIN   | 1.15 MAX           | 2   |
| 28136-10       | WG28 WR8 R1200 | 92.3 GHz to 140 GHz  | UG-387/U-Mod-AC | 10 dB                           | 34 dB MIN   | 1.15 MAX           | 2   |
| 29136-10       | WG29 WR6 R1400 | 114 GHz to 173 GHz   | UG-387/U-Mod-AC | 10 dB                           | 32 dB MIN   | 1.20 MAX           | 2   |
| 29136-03-4P    | WG29 WR6 R1400 | 114 GHz to 173 GHz   | UG-387/U-Mod-AC | 3 dB                            |             | 1.20:1             | 1   |
| 29136-06-4P    | WG29 WR6 R1400 | 114 GHz to 173 GHz   | UG-387/U-Mod-AC | 6 dB                            |             | 1.20:1             | 1   |
| 29136-30-11641 | WG29 WR6 R1400 | 114 GHz to 173 GHz   | 1785-2a         | 30 dB                           | 32 dB MIN   | 1.20 MAX           | 1   |
| 30136-03       | WG30 WR5 R1800 | 145 GHz to 220 GHz   | UG-387/U-Mod-PF | 3 dB                            | 30 dB MIN   | 1.25 MAX           | 1   |
| 30136-06       | WG30 WR5 R1800 | 145 GHz to 220 GHz   | UG387/U-Mod     | 6 dB                            | 30 dB MIN   | 1.25 MAX           | 1   |
| 32136-03       | WG32 -- R2600  | 217 GHz to 330 GHz   | UG-387/U-Mod-PF | 3 dB                            | 26 dB MIN   | 1.40 MAX           | 1   |

## Directional Coupler, Multihole - Series 137

| Model        | WG Size        | Frequency band       | Flange          | Port 1 to Port 3 Coupling Value | Directivity | Secondary arm VSWR | QTY |
|--------------|----------------|----------------------|-----------------|---------------------------------|-------------|--------------------|-----|
| 24137-03     | WG24 WR19 R500 | 39.3 GHz to 59.7 GHz | UG-383/U-PD     | 3 dB                            | 42 dB MIN   | 1.10 MAX           | 1   |
| 25137-06     | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PF     | 6 dB                            | 42 dB MIN   | 1.10 MAX           | 1   |
| 28137-10     | WG28 WR8 R1200 | 92.3 GHz to 140 GHz  | UG-387/U-Mod-PF | 10 dB                           | 38 dB MIN   | 1.15 MAX           | 1   |
| 570137-03-AA | WM-570 --- --- | 330 GHz to 500 GHz   | UG-387/U-Mod-PF | 3 dB                            | 26 dB MIN   | 2.00               | 3   |

## Directional Coupler, Crossguide - Series 270

| Model    | WG Size        | Frequency band     | FlangeP1 | P4Flange/Conn. | Primary arm VSWR | Secondary arm VSWR | QTY |
|----------|----------------|--------------------|----------|----------------|------------------|--------------------|-----|
| 15270-AA | WG15 WR112 R84 | 7.8 GHz to 8.5 GHz | UBR84    | N-Type Female  |                  |                    | 1   |

## Dual Directional Coupler, Multihole - Series 301

| Model        | WG Size        | Frequency band     | Port 1 Interface | Port 2 Interface | Port 3 Interface | Port 4 Interface | Configuration | Port 1 to Port 3 Coupling Value | Port 2 to Port 4 Coupling Value | QTY |
|--------------|----------------|--------------------|------------------|------------------|------------------|------------------|---------------|---------------------------------|---------------------------------|-----|
| 23301-12585  | WG23 WR22 R400 | 33 GHz to 50.1 GHz | UG-383/U         | UG-383/U         | UG-383/U         | UG-383/U         | E             | 30 dB                           |                                 | 1   |
| 27301-AE     | WG27 WR10 R900 | 75 GHz to 110 GHz  | UG-387/U-PD      | UG-387/U-PD      | UG-387/U-PD      | UG-387/U-PD      | C             | 10.0 dB                         | 10.0 dB                         | 1   |
| 27301-9521   | WG27 WR10 R900 | 75 GHz to 110 GHz  | 1785.2a          | UG-387/U-PD      | UG-387/U-PD      | UG-387/U-PD      | C             | 10.0 dB                         | 10.0 dB                         | 2   |
| 27301-11188  | WG27 WR10 R900 | 75 GHz to 110 GHz  | 1785-2a          | UG-387/U-PF      | UG-387/U-PF      | UG-387/U-PF      | C             | 20.0 dB                         | 20.0 dB                         | 3   |
| 570301-10102 | WM-570 --- --- | 325 GHz to 500 GHz | IEEE 17.85-2a    | IEEE 17.85-2a    | IEEE 17.85-2a    | IEEE 17.85-2a    | C             | 7.5 dB                          | 12.5 dB                         | 1   |
| 570301-10464 | WM-570 --- --- | 325 GHz to 500 GHz | 1785.2a          | 1785.2a          | 1785.2a          | 1785.2a          | C             | 5 dB                            | 10 dB                           | 1   |

## Termination, Precision, Low Power - Series 040

| Model  | WG Size         | Frequency band       | Flange          | Power natural convection (mean or CW) | VSWR      | QTY |
|--------|-----------------|----------------------|-----------------|---------------------------------------|-----------|-----|
| 11A040 | WG11A WR229 R40 | 3.22 GHz to 4.9 GHz  | UDR40           | 6 W MAX                               | 1.01 MAX  | 3   |
| 14040  | WG14 WR137 R70  | 5.38 GHz to 8.18 GHz | UDR70           | 3 W MAX                               | 1.01 MAX  | 3   |
| 15040  | WG15 WR112 R84  | 6.58 GHz to 10 GHz   | UBR84           | 2 W MAX                               | 1.01 MAX  | 3   |
| 16040  | WG16 WR90 R100  | 8.2 GHz to 12.5 GHz  | UBR100          | 1 W MAX                               | 1.015 MAX | 1   |
| 17040  | WG17 WR75 R120  | 9.84 GHz to 15 GHz   | UBR120          | 750 mW MAX                            | 1.015 MAX | 2   |
| 20040  | WG20 WR42 R220  | 17.6 GHz to 26.7 GHz | UBR220          | 750 mW MAX                            | 1.02 MAX  | 7   |
| 22040  | WG22 WR28 R320  | 26.4 GHz to 40.1 GHz | UG-599/U        | 500 mW MAX                            | 1.02 MAX  | 7   |
| 29040  | WG29 WR6 R1400  | 110 GHz to 173 GHz   | UG-387/U-Mod    | 150 mW MAX                            | 1.05 MAX  | 1   |
| 30040  | WG30 WR5 R1800  | 140 GHz to 220 GHz   | UG-387/U-Mod-PF | 120 mW MAX                            | 1.06 MAX  | 1   |
| 30040  | WG30 WR5 R1800  | 140 GHz to 220 GHz   | 1785-2a         | 120 mW MAX                            | 1.06 MAX  | 1   |
| 31040  | WG31 -- R2200   | 170 GHz to 261 GHz   | UG-387/U-M-PF   | 100 mW MAX                            | 1.08 MAX  | 1   |

## Termination, Precision, Low Power, Silver Grade - Series 043

| Model | WG Size        | Frequency band       | Flange          | VSWR      | QTY |
|-------|----------------|----------------------|-----------------|-----------|-----|
| 18043 | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140-PF       | 1.02 MAX  | 3   |
| 22043 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U-PF     | 1.02 MAX  | 3   |
| 23043 | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U-PF     | 1.02 MAX  | 3   |
| 24043 | WG24 WR19 R500 | 39.3 GHz to 60 GHz   | UG-383/U-PF     | 1.02 MAX  | 1   |
| 25043 | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PF     | 1.02 MAX  | 3   |
| 27043 | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG387/U-PF      | 1.03 MAX  | 3   |
| 29043 | WG29 WR6 R1400 | 110 GHz to 173 GHz   | UG-387/U-Mod-PF | 1.045 MAX | 4   |
| 30043 | WG30 WR5 R1800 | 140 GHz to 220 GHz   | UG-387/U-Mod-PF | 1.055 MAX | 2   |
| 31043 | WG31 -- R2200  | 170 GHz to 261 GHz   | UG-387/U-Mod-PF | 1.07 MAX  | 5   |

## Termination, Precision, Low Power, Bronze Grade - Series 045

| Model | WG Size        | Frequency band     | Flange    | VSWR     | QTY |
|-------|----------------|--------------------|-----------|----------|-----|
| 15045 | WG15 WR112 R84 | 6.58 GHz to 10 GHz | UBR84-PF  | 1.01 MAX | 2   |
| 17045 | WG17 WR75 R120 | 9.84 GHz to 15 GHz | UBR120-PF | 1.015    | 3   |
| 18045 | WG18 WR62 R140 | 11.9 GHz to 18 GHz | UBR140-PF | 1.02 MAX | 2   |
| 19045 | WG19 WR51 R180 | 14.5 GHz to 22 GHz | UBR180-PF | 1.02 MAX | 1   |

## Termination, Precision, Low Power, Bronze Grade - Series 045

| Model          | WG Size        | Frequency band       | Flange      | VSWR      | QTY |
|----------------|----------------|----------------------|-------------|-----------|-----|
| 20045          | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220-PF   | 1.02 MAX  | 1   |
| 21045          | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260-PF   | 1.02 MAX  | 2   |
| 23045          | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG383/U-PF  | 1.02 MAX  | 1   |
| 23045          | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | GP798-PF    | 1.02 MAX  | 2   |
| 24045          | WG24 WR19 R500 | 39.3 GHz to 60 GHz   | UG-383/U-PF | 1.02 MAX  | 1   |
| 25045          | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG385/U-PF  | 1.02 MAX  | 3   |
| 25045          | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | 1785-2a     | 1.02 MAX  | 2   |
| 26045          | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U-PF | 1.03 MAX  | 3   |
| 26045          | WG26 WR12 R740 | 60 GHz to 92 GHz     | 1785.2a     | 1.03 MAX  | 3   |
| 32045          | WG32 -- R2600  | 217 GHz to 330 GHz   | 1785-2a     | 1.085 MAX | 1   |
| 570045         | WM-570 --- --- | 330 GHz to 500 GHz   | 1785-2a     | 1.13 MAX  | 2   |
| WRD580045-4564 | --- WRD580 --- | 5.9 GHz to 16 GHz    | C1A         | 1.09 MAX  | 1   |

## Termination, High Power - Series 101

| Model              | WG Size        | Frequency band       | Flange   | VSWR     | Power natural convection (mean or CW) | QTY |
|--------------------|----------------|----------------------|----------|----------|---------------------------------------|-----|
| 14101-50-CN00      | WG14 WR137 R70 | 5.38 GHz to 8.18 GHz | UAR70    | 1.08 MAX | 50 W MAX                              | 1   |
| 17101-1600         | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120   | 1.08 MAX | 1.6 kW MAX                            | 1   |
| 19101-500-CV10     | WG19 WR51 R180 | 14.5 GHz to 22 GHz   | UBR180   | 1.08 MAX | 500 W MAX                             | 1   |
| 23101-6-CN00       | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U | 1.1 MAX  | 6 W MAX                               | 1   |
| 23101-500-CV20     | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U | 1.12 MAX | 500 W MAX                             | 1   |
| WRD650101-450-CV10 | --- WRD650 --- | 6.5 GHz to 18 GHz    | C1A      | 1.1 MAX  | 450 W MAX                             | 1   |

## Termination, Sliding, Silver Grade - Series 542

| Model | WG Size        | Frequency band     | Flange    | Element Return Loss | QTY |
|-------|----------------|--------------------|-----------|---------------------|-----|
| 17542 | WG17 WR75 R120 | 9.84 GHz to 15 GHz | UBR120-PF | 30 dB +/- 4 dB      | 2   |
| 18542 | WG18 WR62 R140 | 11.9 GHz to 18 GHz | UBR140-PF | 30 dB +/- 4 dB      | 1   |
| 19542 | WG19 WR51 R180 | 14.5 GHz to 22 GHz | UBR180-PF | 30 dB +/- 4 dB      | 1   |

## Termination, Sliding, Gold Grade - Series 543

| Model | WG Size        | Frequency band       | Flange     | Element Return Loss | QTY |
|-------|----------------|----------------------|------------|---------------------|-----|
| 18543 | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140-PF  | 30 dB +/- 4 dB      | 1   |
| 25543 | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG385/U-PF | 30 dB +/- 5 dB      | 1   |

## Frequency Meter, Programmable - Series 073

| Model | WG Size       | Frequency band     | Flange          | Loaded Q (typical) | Housing VSWR | Insertion Loss | QTY |
|-------|---------------|--------------------|-----------------|--------------------|--------------|----------------|-----|
| 32073 | WG32 -- R2600 | 217 GHz to 330 GHz | UG-387/U-Mod-PF | 350                | 1.35 MAX     | 1.9 dB MAX     | 1   |

## Satcom Switch, DC 2 Way - Series 336

| Model           | WG Size        | Frequency band       | Flange | Isolation | Power (mean or cw) | VSWR     | Insertion Loss | QTY |
|-----------------|----------------|----------------------|--------|-----------|--------------------|----------|----------------|-----|
| 22336-000S1JL01 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz |        | 75 dB MIN | 800 W MAX          | 1.08 MAX | 0.10 dB MAX    | 1   |

## Hybrid Tee, Matched, Full band - Series 385

| Model | WG Size        | Frequency band       | Flange  | VSWR    | Insertion Loss | QTY |
|-------|----------------|----------------------|---------|---------|----------------|-----|
| 22385 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG599/U | 1.3 MAX | 0.2 dB MAX     | 2   |

## Tee, Matched, E Plane - Series 400

| Model | WG Size        | Frequency band     | Flange | Balance between colinear ports | VSWR     | Insertion Loss | QTY |
|-------|----------------|--------------------|--------|--------------------------------|----------|----------------|-----|
| 18400 | WG18 WR62 R140 | 11.9 GHz to 18 GHz | UBR140 | 0.1 dB MAX                     | 1.12 MAX | 0.12 dB MAX    | 1   |

## Horn, Standard Gain - Series 240

| Model        | WG Size        | Frequency band       | Flange          | Nominal Gain | VSWR    | QTY |
|--------------|----------------|----------------------|-----------------|--------------|---------|-----|
| DP240-AB     | COAX           | 2 GHz to 18 GHz      | SMA             |              | 2.5 MAX | 5   |
| 15240-20\AL  | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84           | 20 dBi       | 1.2 MAX | 1   |
| 16240-20     | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz  | UBR100          | 20 dBi       | 1.2 MAX | 1   |
| 18240-20     | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140          | 20 dBi       | 1.2 MAX | 1   |
| 19240-20     | WG19 WR51 R180 | 14.5 GHz to 22 GHz   | UBR180          | 20 dBi       | 1.2 MAX | 1   |
| 20240-20     | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220          | 20 dBi       | 1.2 MAX | 1   |
| 22240-20     | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U        | 20 dBi       | 1.2 MAX | 2   |
| 22240-17     | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U        | 17 dBi       | 1.2 MAX | 2   |
| 23240-20     | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U        | 20 dBi       | 1.2 MAX | 1   |
| 24240-20     | WG24 WR19 R500 | 39.3 GHz to 59.7 GHz | UG-383/U-Mod    | 20 dBi       | 1.2 MAX | 4   |
| 25240-20     | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U        | 20 dBi       | 1.2 MAX | 2   |
| 26240-25     | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U        | 25 dBi       | 1.2 MAX | 3   |
| 26240-20     | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U        | 20 dBi       | 1.2 MAX | 5   |
| 27240-20     | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-AC | 20 dBi       | 1.2 MAX | 1   |
| 29240-20     | WG29 WR6 R1400 | 114 GHz to 173 GHz   | UG-387/U-Mod    | 20 dBi       | 1.2 MAX | 1   |
| 30240-20     | WG30 WR5 R1800 | 145 GHz to 220 GHz   | 1785-2a         | 20 dBi       | 1.2 MAX | 2   |
| 32240-20-101 | WG32 -- R2600  | 217 GHz to 330 GHz   | 1785-2a         | 20 dBi       | 1.2 MAX | 2   |

## Omni Directional Antenna - Series 249

| Model       | WG Size | Frequency band     | Connector    | Nom mid-band gain | VSWR     | QTY |
|-------------|---------|--------------------|--------------|-------------------|----------|-----|
| MD249-AC    | COAX    | 36 GHz to 43.5 GHz | 2.4mm Female | 1.0 dBi Ref. Only | 1.60 MAX | 2   |
| MD249-10702 | COAX    | 17 GHz to 21 GHz   | K Female     | 2.0 dBi Ref. Only | 1.75 MAX | 1   |

## Lens Horn Antenna (Low Cost) - Series 810

| Model          | WG Size        | Frequency band   | Flange   | Nom mid-band gain | Lens Diameter | VSWR    | QTY |
|----------------|----------------|------------------|----------|-------------------|---------------|---------|-----|
| 23810-QA-11837 | WG23 WR22 R400 | 39 GHz to 45 GHz | UG-383/U | 24.5 dBi          | 50 mm         | 1.5 MAX | 2   |

## Lens Horn Antenna (Economy) - Series 820

| Model         | WG Size        | Frequency band     | Flange        | Nom mid-band gain | Lens Diameter | VSWR    | QTY |
|---------------|----------------|--------------------|---------------|-------------------|---------------|---------|-----|
| 21820-RA-4857 | WG21 WR34 R260 | 21.7 GHz to 33 GHz | UBR260-PF     | 31.5 dBi          | 175 mm        | 1.5 MAX | 1   |
| 26820-WA-2919 | WG26 WR12 R740 | 71 GHz to 86 GHz   | UG-387/U Comp | 39.33 dBi         | 125 mm        | 1.6 MAX | 3   |

## Lens Horn Antenna (High Performance) - Series 880

| Model         | WG Size | Frequency band | Flange        | Nom mid-band gain | Lens Diameter | VSWR     | QTY |
|---------------|---------|----------------|---------------|-------------------|---------------|----------|-----|
| CL880-FA-3328 | COAX    | 7 GHz to 8 GHz | N Type Female | 20 dBi            |               | 1.25 MAX | 35  |

## Filter, Low Pass - Series 280

| Model          | WG Size        | Stop band frequency range | Port 1 Interface | Port 2 Interface | VSWR     | Insertion Loss | QTY |
|----------------|----------------|---------------------------|------------------|------------------|----------|----------------|-----|
| 19280-4567     | WG19 WR51 R180 | 29 GHz to 66 GHz          | UBR180           | UBR180           | 1.15 MAX | 0.35 dB MAX    | 5   |
| 20280-OBSOLETE | WG20 WR42 R220 | 35.2 GHz to 80.1 GHz      | UBR220           | UBR220           | 1.15 MAX | 0.4 dB MAX     | 1   |
| 21280          | WG21 WR34 R260 | 43.4 GHz to 99 GHz        | UBR260           | UBR260           | 1.2 MAX  | 0.45 dB MAX    | 1   |
| 23280-OBSOLETE | WG23 WR22 R400 | 66 GHz to 150.3 GHz       | UG-383/U         | Not Specified    | 1.3 MAX  | 0.5 dB MAX     | 1   |
| 23280-OBSOLETE | WG23 WR22 R400 | 66 GHz to 150.3 GHz       | UG383/U-AC       | UG-383/U-AC      | 1.3 MAX  | 0.5 dB MAX     | 1   |
| 26280-2515     | WG26 WR12 R740 | 103 GHz to 120 GHz        | UG387/U-Mod      | Not Specified    | 1.45 MAX | 0.6 dB MAX     | 3   |
| 27280-2513     | WG27 WR10 R900 | 147.6 GHz to 224 GHz      | UG387/U-Mod      | UG387/U-Mod      | 1.55 MAX | 0.7 dB MAX     | 1   |

## Filter, Band Stop Fixed - Series 283

| Model       | WG Size        | Passband frequency range | Flange       | Stop band frequency range | Stop band rejection | Return Loss | QTY |
|-------------|----------------|--------------------------|--------------|---------------------------|---------------------|-------------|-----|
| 27283-11723 | WG27 WR10 R900 | 93 GHz to 95.5 GHz       | UG-387/U-MOD | 85.5 MHz to 87 GHz        |                     |             | 3   |

## Filter, Band Pass, Broadband - Series 284

| Model       | WG Size        | Frequency band       | Flange | VSWR    | Insertion Loss | QTY |
|-------------|----------------|----------------------|--------|---------|----------------|-----|
| 17284-10385 | WG17 WR75 R120 | 10.7 GHz to 14.8 GHz | tbc    | 1.1 MAX | 0.45 dB MAX    | 1   |

## Duplexer - Series 286

| Model       | WG Size        | Frequency band        | Flange              | Stop band frequency range | VSWR    | Insertion Loss | QTY |
|-------------|----------------|-----------------------|---------------------|---------------------------|---------|----------------|-----|
| 17286-10811 | WG17 WR75 R120 | 10.7 GHz to 13.85 GHz | Not Specified       |                           |         | 0.4 dB MAX     | 1   |
| 26286-3932  | WG26 WR12 R740 | Common port           | UG-387/U compatible | 81 GHz to 92 GHz          | 1.5 MAX | 0.7 dB MAX     | 2   |

## Short, Flush - Series 190

| Model          | WG Size        | Frequency band       | Flange        | QTY |
|----------------|----------------|----------------------|---------------|-----|
| 14190          | WG14 WR137 R70 | 5.38 GHz to 8.18 GHz | UDR70/CPR137F | 1   |
| 15190          | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84         | 3   |
| 15190          | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UDR84         | 2   |
| 17190          | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120        | 2   |
| 19190          | WG19 WR51 R180 | 14.5 GHz to 22 GHz   | UBR180        | 3   |
| 20190-10321\AL | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220        | 4   |

## Short, Flush, Bronze - Series 191

| Model | WG Size        | Frequency band       | Flange  | QTY |
|-------|----------------|----------------------|---------|-----|
| 12191 | WG12 WR187 R48 | 3.94 GHz to 5.99 GHz | UDR48   | 1   |
| 14191 | WG14 WR137 R70 | 5.38 GHz to 8.18 GHz | CPR137F | 1   |
| 15191 | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84   | 2   |
| 17191 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120  | 3   |
| 18191 | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140  | 2   |
| 20191 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220  | 1   |
| 21191 | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260  | 3   |

## Short, Flush, Bronze - Series 191

| Model     | WG Size        | Frequency band       | Flange         | QTY |
|-----------|----------------|----------------------|----------------|-----|
| 23191     | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG383/U        | 3   |
| 23191     | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | GP798          | 2   |
| 24191     | WG24 WR19 R500 | 39.3 GHz to 59.7 GHz | UG-383/U       | 1   |
| 25191     | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U       | 1   |
| 25191     | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | 1785.2a        | 2   |
| 26191     | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U       | 3   |
| 26191     | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | 1785.2a        | 2   |
| 27191     | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U       | 1   |
| 27191     | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | 1785.2a        | 2   |
| 32191     | WG32 -- R2600  | 217 GHz to 330 GHz   | 1785-2a        | 1   |
| 570191    | WM-570 --- --- | 330 GHz to 500 GHz   | 1785-2a        | 2   |
| 570191-AA | WM-570 --- --- | 330 GHz to 500 GHz   | UG387/U-Mod-PF | 1   |

## Short, Flush, Silver - Series 192

| Model | WG Size        | Frequency band       | Flange         | QTY |
|-------|----------------|----------------------|----------------|-----|
| 12192 | WG12 WR187 R48 | 3.94 GHz to 5.99 GHz | UDR48          | 1   |
| 15192 | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84          | 1   |
| 16192 | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz  | UBR100         | 3   |
| 17192 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120         | 4   |
| 17192 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | E0006-65       | 2   |
| 18192 | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140         | 2   |
| 19192 | WG19 WR51 R180 | 14.5 GHz to 22 GHz   |                | 2   |
| 20192 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220         | 2   |
| 24192 | WG24 WR19 R500 | 39.3 GHz to 59.7 GHz | UG-383/U       | 1   |
| 25192 | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U       | 5   |
| 27192 | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod   | 4   |
| 30192 | WG30 WR5 R1800 | 140 GHz to 220 GHz   | UG387/U-Mod-PF | 3   |

## Transitions, Tapered Waveguide to Waveguide - Series 000

| Model    | WG Size        | Flange (port 1) | Flange (port 2) | QTY |
|----------|----------------|-----------------|-----------------|-----|
| 25000-26 | WG25 WR15 R620 | UG-385/U        | UG-387/U        | 1   |
| 27000-28 | WG27 WR10 R900 | UG-387/U-Mod    | UG-387/U-Mod    | 3   |
| 27000-29 | WG27 WR10 R900 | UG-387/U-Mod    | UG-387/U-Mod    | 1   |

## Adaptor, Waveguide to Coax, Bronze Grade - Series 091

| Model      | WG Size        | Frequency band       | Flange      | Connector               | VSWR     | QTY |
|------------|----------------|----------------------|-------------|-------------------------|----------|-----|
| 21091-KF70 | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260-PF   | K Female                | 1.25 MAX | 2   |
| 22091      | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U-PF | K Female                | 1.2 MAX  | 1   |
| 23091-TF70 | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | GP798-PF    | 2.4mm Compatible female | 1.30 MAX | 2   |

## Adaptor, Waveguide to Coax - Series 093

| Model      | WG Size        | Frequency band       | Flange      | Connector               | VSWR     | QTY |
|------------|----------------|----------------------|-------------|-------------------------|----------|-----|
| 08093-NF10 | WG8 WR430 R22  | 1.72 GHz to 2.61 GHz | UG-435B/U   | N Female                | 1.20 MAX | 1   |
| 19093-KF20 | WG19 WR51 R180 | 14.5 GHz to 22 GHz   | UBR180      | K Female                | 1.20 MAX | 2   |
| 20093-KF20 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220      | K Female                | 1.20 MAX | 16  |
| 21093-TF30 | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260      | 2.4mm Female            | 1.25 MAX | 1   |
| 22093-KF20 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG599/U     | K Female                | 1.20 MAX | 12  |
| 23093-TF30 | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG383/U     | 2.4mm Compatible female | 1.4 MAX  | 5   |
| 23093-TF30 | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U-AC | 2.4mm Compatible female | 1.4 MAX  | 3   |

## Adaptor, Waveguide to Coax - Series 094

| Model         | WG Size         | Frequency band       | Flange       | Connector     | VSWR     | QTY |
|---------------|-----------------|----------------------|--------------|---------------|----------|-----|
| 10094-NF10    | WG10 WR284 R32  | 2.6 GHz to 3.95 GHz  | 1560/0010    | N Female      | 1.15 MAX | 1   |
| 11A094-NF10   | WG11A WR229 R40 | 3.22 GHz to 4.9 GHz  | UDR40        | N Female      | 1.15 MAX | 2   |
| 12094-SF40    | WG12 WR187 R48  | 3.94 GHz to 5.99 GHz | UAR48        | SMA Female    | 1.15 MAX | 5   |
| 12094-NF10    | WG12 WR187 R48  | 3.94 GHz to 5.99 GHz | UDR 48       | N Female      | 1.14 MAX | 1   |
| 14094-NF10    | WG14 WR137 R70  | 5.38 GHz to 8.18 GHz | UDR70        | N Female      | 1.10 MAX | 8   |
| 14094-SF40    | WG14 WR137 R70  | 5.38 GHz to 8.18 GHz | UDR70        | SMA Female    | 1.15 MAX | 15  |
| 14094-SF40    | WG14 WR137 R70  | 5.38 GHz to 8.18 GHz | CPR137F      | SMA Female    | 1.15 MAX | 6   |
| 15094-SF40    | WG15 WR112 R84  | 6.58 GHz to 10 GHz   | UBR84        | SMA Female    | 1.12 MAX | 10  |
| 15094-NF10    | WG15 WR112 R84  | 6.58 GHz to 10 GHz   | UBR84        | N Female      | 1.12 MAX | 1   |
| 16094-SF40    | WG16 WR90 R100  | 8.2 GHz to 12.5 GHz  | UBR100       | SMA Female    | 1.12 MAX | 15  |
| 17094-SF40    | WG17 WR75 R120  | 9.84 GHz to 15 GHz   | UDR120       | SMA Female    | 1.12 MAX | 10  |
| 18094-SF40    | WG18 WR62 R140  | 11.9 GHz to 18 GHz   | UBR140       | SMA Female    | 1.2 MAX  | 15  |
| 18094-NF10    | WG18 WR62 R140  | 11.9 GHz to 18 GHz   | UBR140       | N Female      | 1.12 MAX | 14  |
| 19094-KF20    | WG19 WR51 R180  | 14.5 GHz to 22 GHz   | UBR180       | K Type Female | 1.10 MAX | 16  |
| 20094-KF20    | WG20 WR42 R220  | 17.6 GHz to 26.7 GHz | UBR220       | K Female      | 1.10 MAX | 27  |
| 21094-KF20\AL | WG21 WR34 R260  | 21.7 GHz to 33 GHz   | UBR260T      | K Female      | 1.15 MAX | 3   |
| 22094-KF20    | WG22 WR28 R320  | 26.4 GHz to 40.1 GHz | UG-599/U     | K Female      | 1.15 MAX | 26  |
| 23094-VF50    | WG23 WR22 R400  | 33 GHz to 50.1 GHz   | UG-383/U     | 1.85mm Female | 1.30 MAX | 1   |
| 24094-VF50    | WG24 WR19 R500  | 39.3 GHz to 60 GHz   | UG-383/U-Mod | 1.85mm Female | 1.30 MAX | 2   |

## Adaptor, Waveguide to Coax, High Power - Series 097

| Model              | WG Size         | Frequency band         | Flange  | Connector  | VSWR     | Power (mean or CW)                               | QTY |
|--------------------|-----------------|------------------------|---------|------------|----------|--|-----|
| F11A097-XF10-12059 | WG11A WR229 R40 | 3.415 GHz to 3.915 GHz | T0033-1 | TNC Female | 1.25 MAX | 300 W MAX  | 2   |
| 21097-KF20         | WG21 WR34 R260  | 21.7 GHz to 33 GHz     | UBR260  | K female   | 1.2 MAX  | Greater of: 55W Max or determined on application | 5   |

## Adaptor, Waveguide to Coax, Low PIM - Series 098

| Model      | WG Size        | Frequency band      | Flange        | Connector | PIM level      | VSWR    | QTY |
|------------|----------------|---------------------|---------------|-----------|----------------|---------|-----|
| 10098-NF10 | WG10 WR284 R32 | 2.6 GHz to 3.95 GHz | 1560/0010 PIM | N Female  | Low PIM design | 1.1 MAX | 3   |

## End Launch Adaptor - Series 373

| Model      | WG Size        | Frequency band       | Flange      | Connector     | VSWR    | QTY |
|------------|----------------|----------------------|-------------|---------------|---------|-----|
| 17373-KF20 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120 Comp | K Female      | 1.1 MAX | 2   |
| 18373-KF20 | WG18 WR62 R140 | 11.9 GHz to 18.5 GHz | UBR140 Comp | K Type Female | 1.1 MAX | 1   |



## End Launch Adaptor - Series 373

| Model           | WG Size        | Frequency band       | Flange                 | Connector               | VSWR     | QTY |
|-----------------|----------------|----------------------|------------------------|-------------------------|----------|-----|
| 20373-KF20      | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220-PF              | K Type Female           | 1.13 MAX | 1   |
| 21373-TF31      | WG21 WR34 R260 | 19.7 GHz to 30 GHz   | UBR260                 | 2.4mm Compatible Female | 1.25 MAX | 2   |
| 21373-KF20-5766 | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | customer 6 hole flange | K Female                | 1.2 MAX  | 2   |
| 21373-TF30-8917 | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260                 | 2.4mm Compatible Female | 1.25 MAX | 2   |
| 24373-VF50      | WG24 WR19 R500 | 35 GHz to 37 GHz     | UG-383/U-PF            | 1.85mm Female           | 1.2 MAX  | 1   |
| 24373-VF51      | WG24 WR19 R500 | 39.3 GHz to 55 GHz   | UG-383/U Comp          | 1.85mm Female           | 1.30 MAX | 2   |
| 25373-WM60-7435 | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-387/U-PF            | 1.0mm Male              | 1.25 MAX | 4   |
| 26373-WF60      | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U Comp          | 1.0mm Female            | 1.35 MAX | 2   |
| 26373-WF60      | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U-AC            | 1.0mm Female            | 1.35 MAX | 11  |
| 26373-WF60      | WG26 WR12 R740 | 60 GHz to 92 GHz     | 1785-2a                | 1.0mm Female            | 1.35 MAX | 1   |
| 26373-WM60      | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U Comp          | 1.0mm Male              | 1.35 MAX | 1   |
| 26373-WF60-7337 | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U               | 1.0mm Female            | 1.25 MAX | 3   |
| 26373-WM60-7438 | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U-Mod-PF        | 1mm Male                | 1.25 MAX | 3   |
| 27373-WF60      | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-PF        | 1.0mm Female            | 1.35 MAX | 6   |
| 27373-WM60      | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod           | 1.0mm Male              | 1.35 MAX | 1   |
| 27373-WF60      | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-AC        | 1.0mm Female            | 1.40 MAX | 9   |
| 27373-WF60-7340 | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-PF        | 1.0mm Female            | 1.20 MAX | 2   |
| 27373-WM60-8721 | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-PF        | 1mm Male                | 1.2 MAX  | 1   |
| WRD580373-NF10  | --- WRD580 --- | 5.8 GHz to 16 GHz    | C1A                    | N Female                | 1.20 MAX | 3   |
| WRD650373-NF10  | --- WRD650 --- | 6.5 GHz to 18 GHz    | C1A                    | N Female                | 1.20 MAX | 2   |

## End Launch Adaptor, High Power - Series 377

| Model         | WG Size        | Frequency band      | Flange             | Connector       | Power (mean or CW) | VSWR    | QTY |
|---------------|----------------|---------------------|--------------------|-----------------|--------------------|---------|-----|
| 10377-DF-4370 | WG10 WR284 R32 | 2.45 GHz +/- 50 MHz | CPR284F (UG1725/U) | 7-16 DIN Female | 1.5 kW MIN         | 1.1 MAX | 2   |
| 10377-DF10    | WG10 WR284 R32 | 2.6 GHz to 3.95 GHz | UG-1725/U          | 7-16 DIN Female | 2.1 kW MAX         | 1.1 MAX | 3   |

## Transition, Rectangular to Circular - linear polarisation - Series 643

| Model | WG Size        | Frequency band       | Flange (port 1) | Flange (port 2)                           | Output Port diameter (H) | Length  | QTY |
|-------|----------------|----------------------|-----------------|---|--------------------------|---------|-----|
| 20643 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220          | 8 hole circular as per our catalogue 2010 | 10.93 mm                 | 77.5 mm | 1   |
| 22643 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U        | 8 hole circular                           | 7.25 mm                  | 51.5 mm | 1   |

## Transition, Rectangular to Circular, With Resistive Vane - Series 644

| Model | WG Size        | Frequency band      | Flange (port 1) | Flange (port 2)                             | Output Port diameter (H) | Length  | QTY |
|-------|----------------|---------------------|-----------------|---|--------------------------|---------|-----|
| 16644 | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz | UBR100          | 8 hole circular as per our catalogue 2010   | 23.368 mm                | 76 mm   | 1   |
| 17644 | WG17 WR75 R120 | 9.84 GHz to 15 GHz  | UBR120          | 8 hole circular as per Flann catalogue 2010 | 19.35 mm                 | 64 mm   | 1   |
| 20644 | WG20 WR42 R220 | 18 GHz to 26.5 GHz  | UBR220          | 8 hole circular as per Flann catalogue 2010 | 10.925 mm                | 77.5 mm | 1   |

## Flexible TEM Waveguide, Flange to Flange Adaptor - Series 350

| Model       | WG Size        | Frequency band     | Flange (port 1) | Flange (port 2) | Length | VSWR     | QTY |
|-------------|----------------|--------------------|-----------------|-----------------|--------|----------|-----|
| 24350-L500  | WG24 WR19 R500 | 39.3 GHz to 60 GHz | UG383/U-Mod     |                 | 500 mm | 1.45 MAX | 1   |
| 26350-L200  | WG26 WR12 R740 | 60 GHz to 92 GHz   | UG-387/U-AC     | UG-387/U-AC     | 200 mm | 1.65 MAX | 7   |
| 26350-L1700 | WG26 WR12 R740 | 60 GHz to 92 GHz   | UG-387/U-AC     | UG-387/U-AC     | 1.7 m  | 1.65 MAX | 1   |

## Waveguide Straight, Flange to Flange Adaptor - Series 441

| Model       | WG Size        | Frequency band     | Flange (port 1) | Flange (port 2) | VSWR     | QTY |
|-------------|----------------|--------------------|-----------------|-----------------|----------|-----|
| 23441       | WG23 WR22 R400 | 33 GHz to 50.1 GHz | UG-383/U        | GP798-PF        | 1.05 MAX | 8   |
| 32441-6803  | WG32 -- R2600  | 217 GHz to 330 GHz | UG-387/U-Mod-PF | UG-387/U-Mod-PF | 1.2 MAX  | 2   |
| 570441-6802 | WM-570 --- --- | 330 GHz to 500 GHz | UG-387/U-Mod-AC | UG-387/U-Mod-AC | 1.2 MAX  | 3   |
| 570441-7532 | WM-570 --- --- | 330 GHz to 500 GHz | UG-387/U-Mod-PF | UG-387/U-Mod-PF | 1.35 MAX | 2   |

## Waveguide Spacer, Flange to Flange Adaptor - Series 445

| Model    | WG Size        | Frequency band       | Flange (port 1) | Flange (port 2) | Length | QTY |
|----------|----------------|----------------------|-----------------|-----------------|--------|-----|
| 17445-10 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120          | UBR120          | 10 mm  | 2   |
| 22445-05 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U        | UG-599/U        | 5 mm   | 1   |

## Waveguide Straight (Ruggedised), Flange to Flange Adaptor - Series 448

| Model      | WG Size        | Frequency band       | Flange (port 1) | Flange (port 2) | Overall Length | VSWR     | QTY |
|------------|----------------|----------------------|-----------------|-----------------|----------------|----------|-----|
| 25448-AA   | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PF     | UG-385/U-PF     | 50 mm          | 1.05 MAX | 2   |
| 26448-AA   | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U-PF     | UG-387/U-PF     | 50 mm          | 1.05 MAX | 2   |
| 28448-9593 | WG28 WR8 R1200 | 92.3 GHz to 140 GHz  | 1785.2a         | 1785.2a         | 35 mm          | 1.13 MAX | 1   |
| 30448-AA   | WG30 WR5 R1800 | 140 GHz to 220 GHz   | UG-387/U-Mod-PF | UG-387/U-Mod-PF | 35 mm          | 1.12 MAX | 1   |

## Waveguide Twist - Series 450

| Model      | WG Size        | Frequency band       | Flange   | Twist direction | Twist angle | VSWR      | QTY |
|------------|----------------|----------------------|----------|-----------------|-------------|-----------|-----|
| 15450-90RH | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84    | Right hand      | 90 °        | 1.03 MAX  | 1   |
| 20450-90LH | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220   | Left hand       | 90 °        | 1.045 MAX | 8   |
| 22450-90LH | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U | Left hand       | 90 °        | 1.055 MAX | 5   |

## Waveguide Twist, Compact - Series 451

| Model           | WG Size        | Frequency band       | Flange (port 1) | Flange (port 2) | VSWR | QTY |
|-----------------|----------------|----------------------|-----------------|-----------------|------|-----|
| 22451-90LH-5854 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U        | UG-599/U        |      | 2   |

## Waveguide Bend, E-Plane - Series 460

| Model            | WG Size        | Frequency band        | Flange (port 1)       | Flange (port 2)       | Bend type VSWR | Bend angle         | QTY |
|------------------|----------------|-----------------------|-----------------------|-----------------------|----------------|--------------------|-----|
| 14460-90         | WG14 WR137 R70 | 5.38 GHz to 8.2 GHz   | UDR70                 | UDR70                 | 1.05 MAX       | 90 °               | 1   |
| 17460-90\AL-8246 | WG17 WR75 R120 | 10.7 GHz to 12.75 GHz | UBR120                | Flann A0011-3         | 1.1 MAX        | 90 °               | 1   |
| 18460-90         | WG18 WR62 R140 | 11.9 GHz to 18 GHz    | UBR140                | UBR140                | 1.05 MAX       | 90 °               | 3   |
| 19460-90\AL-8245 | WG19 WR51 R180 | 17.3 GHz to 20.2 GHz  | UBR180                | Flann A0011-18        | 1.1 MAX        | 90 °               | 1   |
| 20460-90         | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz  | UBR220                | UBR220                | 1.05 MAX       | 90 °               | 3   |
| 21460-90         | WG21 WR34 R260 | 21.7 GHz to 33 GHz    | UBR260                | UBR260                | 1.055 MAX      | 90 °               | 2   |
| 21460-9759       | WG21 WR34 R260 | 29 GHz to 31 GHz      | See Customer Document | See Customer Document | 1.5 MAX        | See customer drg ° | 7   |

## Waveguide Bend, E-Plane - Series 460

| Model       | WG Size        | Frequency band       | Flange (port 1) | Flange (port 2) | Bend type VSWR | Bend angle    | QTY |
|-------------|----------------|----------------------|-----------------|-----------------|----------------|---------------|-----|
| 22460-90    | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U        | UG-599/U        | 1.06 MAX       | 90 °          | 4   |
| 22460-10804 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | CMT-0568-5876   | CMT-0568-5876   | 1.06 MAX       | S joggle °    | 2   |
| 26460-90    | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U        | UG-387/U        | 1.09 MAX       | 90 °          | 1   |
| 27460-90    | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod    | UG-387/U-Mod    | 1.11 MAX       | 90 °          | 2   |
| 27460-9906  | WG27 WR10 R900 | 75 GHz to 110 GHz    | UG-387/U        | UG-387/U        | 1.2 MAX        | Not Specified | 2   |

## Waveguide Bend, H-Plane - Series 470

| Model    | WG Size        | Frequency band       | Flange (port 1) | Flange (port 2) | Bend type | Bend angle | VSWR      | QTY |
|----------|----------------|----------------------|-----------------|-----------------|-----------|------------|-----------|-----|
| 20470-90 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220          | UBR220          | tbc       | 90 °       | 1.05 MAX  | 3   |
| 21470-90 | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260          | UBR260          | Swept     | 90 °       | 1.055 MAX | 2   |
| 26470-90 | WG26 WR12 R740 | 60 GHz to 92 GHz     | UG-387/U        | UG-387/U        | Formed    | 90 °       | 1.09 MAX  | 1   |
| 29470-90 | WG29 WR6 R1400 | 114 GHz to 173 GHz   | UG-387/U-Mod    | UG-387/U-Mod    | tba       | 90 °       | 1.2 MAX   | 1   |

## Waveguide Assembly - Series 480

| Model       | WG Size        | Frequency band     | Flange (port 1) | Flange (port 2) | VSWR            | Insertion Loss | QTY |
|-------------|----------------|--------------------|-----------------|-----------------|-----------------|----------------|-----|
| 18480-10262 | WG18 WR62 R140 |                    | UG-541/U        |                 |                 |                | 2   |
| 26480-9420  | WG26 WR12 R740 | 60.5 GHz to 92 GHz | UG-387/U-AC     | UG-387/U-AC     | 1.07 Design aim |                | 2   |

## Seamless Semi-rigid Waveguide, Flange to Flange Adaptor - Series 562

| Model      | WG Size        | Frequency band       | Flange (port 1) | Flange (port 2) | Length | VSWR     | QTY |
|------------|----------------|----------------------|-----------------|-----------------|--------|----------|-----|
| 25562-L300 | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-AC     | UG-385/U-AC     | 300 mm | 1.15 MAX | 6   |
| 25562-L350 | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-AC     | UG-385/U-AC     | 350 mm | 1.15 MAX | 1   |
| 25562-L450 | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-AC     | UG-385/U-AC     | 450 mm | 1.15 MAX | 5   |
| 27562-L300 | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-AC | UG-387/U-Mod-AC | 300 mm | 1.23 MAX | 1   |
| 27562-L150 | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-M-AC   | UG-387/U-M-AC   | 150 mm | 1.23 MAX | 3   |

## Mismatch, Gold Grade - Series 297

| Model    | WG Size        | Frequency band     | Flange         | VSWR | QTY |
|----------|----------------|--------------------|----------------|------|-----|
| 29297-05 | WG29 WR6 R1400 | 114 GHz to 173 GHz | UG387/U-Mod-PF | 2.0  | 1   |

## Waveguide Section, Bronze Grade - Series 440

| Model | WG Size        | Frequency band       | Flange          | Length            | WG aperture tolerance | QTY |
|-------|----------------|----------------------|-----------------|-------------------|-----------------------|-----|
| 14440 | WG14 WR137 R70 | 5.38 GHz to 8.18 GHz | UAR70-PF        | 236 mm +/- 80 um  | 35 um MAX             | 1   |
| 15440 | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84-PF        | 192 mm +/- 500 um | 30 um MAX             | 1   |
| 16440 | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz  | UBR100-PF       | 154 mm +/- 60 um  | 20 um MAX             | 1   |
| 17440 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120-PF       | 128 mm            | 20 um MAX             | 1   |
| 18440 | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140-PF       | 107 mm +/- 50 um  | 18 um MAX             | 1   |
| 19440 | WG19 WR51 R180 | 14.5 GHz to 22 GHz   | UBR180-PF       | 71 mm +/- 30 um   | 15 um MAX             | 1   |
| 20440 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220-PF       | 71 mm +/- 30 um   | 15 um MAX             | 1   |
| 23440 | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | GP798-PF        | 46 mm +/- 20 um   | 15 um MAX             | 1   |
| 27440 | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-M-PF   | 35 mm +/- 500 um  | 15 um MAX             | 1   |
| 29440 | WG29 WR6 R1400 | 114 GHz to 173 GHz   | UG-387/U-Mod-PF | 35 mm             | 10 um MAX             | 3   |
| 29440 | WG29 WR6 R1400 | 114 GHz to 173 GHz   | 1785-2a         | 35 mm             | 10 um MAX             | 2   |

## Waveguide Section, Silver Grade - Series 442

| Model | WG Size        | Frequency band       | Flange (port 1) | Length           | WG aperture tolerance | QTY |
|-------|----------------|----------------------|-----------------|------------------|-----------------------|-----|
| 16442 | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz  | UBR100-PF       | 154 mm +/- 30 nm | 10 um MAX             | 2   |
| 17442 | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120-PF       | 128 mm +/- 30 um | 10 um MAX             | 2   |
| 20442 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220-PF       | 71 mm +/- 0 m    | 10 um MAX             | 1   |
| 23442 | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U-PF     | 46 mm +/- 10 um  | 10 um MAX             | 1   |
| 25442 | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PF     | 35 mm +/- 10 um  | 10 um MAX             | 1   |

## Waveguide Section, Gold Grade - Series 443

| Model | WG Size        | Frequency band       | Flange         | Length           | WG aperture tolerance | QTY |
|-------|----------------|----------------------|----------------|------------------|-----------------------|-----|
| 18443 | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140-PF      | 107 mm +/- 12 um | 5 um MAX              | 1   |
| 20443 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220-PF      | 71 mm            | 5 um MAX              | 1   |
| 20443 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UG-595/U-PF    | 71 mm            | 5 um MAX              | 1   |
| 22443 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U-PF    | 60 mm            | 5 um MAX              | 1   |
| 29443 | WG29 WR6 R1400 | 114 GHz to 173 GHz   | UG387/U-Mod-PF | 35 mm            | 3 um MAX              | 1   |

## Offset, Bronze - Series 491

| Model         | WG Size        | Frequency band       | Flange          | Length              | QTY |
|---------------|----------------|----------------------|-----------------|---------------------|-----|
| 12491-02      | WG12 WR187 R48 | 3.94 GHz to 5.99 GHz | UAR48-PF        | 20.102 mm +/- 50 um | 1   |
| 15491-01      | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84-PF        | 6.016 mm +/- 267 um | 1   |
| 16491-02      | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz  | UBR100-PF       | 9.63 mm +/- 30 um   | 3   |
| 18491-02-4095 | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | WR62Imperial    | 6.668 mm +/- 30 um  | 5   |
| 18491-02      | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140-PF       | 6.668 mm +/- 25 um  | 1   |
| 18491-01      | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140-PF       | 3.334 mm +/- 25 um  | 1   |
| 19491-02      | WG19 WR51 R180 | 14.5 GHz to 22 GHz   | UBR180-PF       | 5.461 mm +/- 25 um  | 1   |
| 19491-01      | WG19 WR51 R180 | 14.5 GHz to 22 GHz   | UBR180-PF       | 2.73 mm +/- 25 um   | 1   |
| 20491-03      | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220-PF       | 6.752 mm +/- 20 um  | 1   |
| 21491-01      | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260-PF       |                     | 1   |
| 23491-02      | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U-PF     | 2.399 mm +/- 20 um  | 1   |
| 23491-01      | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U-PF     | 1.199 mm +/- 20 um  | 1   |
| 23491-02      | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | GP798-PF        | 2.399 mm +/- 20 um  | 1   |
| 25491-02      | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PF     | 1.587 mm +/- 20 um  | 1   |
| 25491-01      | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PF     | 793 um +/- 20 um    | 2   |
| 25491-03      | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PF     | 2.38 mm +/- 20 um   | 1   |
| 26491-02      | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | 1785-2a         | 1.308 um +/- 20 um  | 1   |
| 26491-03      | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U-PF     | 1.963 mm +/- 20 um  | 1   |
| 26491-01      | WG26 WR12 R740 | 60.5 GHz to 92 GHz   | UG-387/U-PF     | 654 um +/- 20 um    | 1   |
| 27491-01      | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-PF | 537 um              | 2   |
| 27491-03      | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-Mod-PF | 1.612 um            | 1   |
| 27491-02      | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | 1785.2a         | 1.074 mm            | 3   |
| 28491-N1      | WG28 WR8 R1200 | 92.3 GHz to 140 GHz  | UG-387/U-Mod-PF |                     | 4   |
| 28491-N2      | WG28 WR8 R1200 | 92.3 GHz to 140 GHz  | UG-387/U-Mod-PF |                     | 3   |
| 29491-N1      | WG29 WR6 R1400 | 110 GHz to 131 GHz   | UG-387/U-Mod-PF |                     | 2   |
| 29491-N2      | WG29 WR6 R1400 | 131 GHz to 173 GHz   | UG-387/U-Mod-PF |                     | 2   |
| 29491-10380   | WG29 WR6 R1400 | 114 GHz to 173 GHz   | 1785-2a         |                     | 1   |
| 29491-02      | WG29 WR6 R1400 | 114 GHz to 173 GHz   | 1785-2a         |                     | 4   |
| 30491-02      | WG30 WR5 R1800 | 140 GHz to 220 GHz   | 1785-2a         |                     | 2   |
| 32491-N1      | WG32 -- R2600  | 220 GHz to 260 GHz   | UG-387/U-Mod-PF |                     | 3   |
| 32491-N1      | WG32 -- R2600  | 220 GHz to 260 GHz   | 1785-2a         |                     | 1   |

## Offset, Bronze - Series 491

| Model        | WG Size        | Frequency band     | Flange          | Length             | QTY |
|--------------|----------------|--------------------|-----------------|--------------------|-----|
| 32491-N2     | WG32 -- R2600  | 220 GHz to 260 GHz | UG-387/U-Mod-PF |                    | 2   |
| 32491-12127  | WG32 -- R2600  | 220 GHz to 325 GHz | 1785-2a         | 368.3 um +/- 20 um | 1   |
| 570491-N3    | WM-570 --- --- | 330 GHz to 500 GHz | 1785-2a         | 1.02 mm +/- 10 um  | 4   |
| 570491-00K   | WM-570 --- --- | 330 GHz to 500 GHz | IEEE 17.85-2A   | 0 m +/- 0 m        | 4   |
| 570491-N1-AA | WM-570 --- --- | 330 GHz to 500 GHz | UG387/U-Mod-PF  | 1.74 mm +/- 10 um  | 2   |
| 570491-N2-AA | WM-570 --- --- | 330 GHz to 500 GHz | UG387/U-Mod-PF  | 1.33 mm +/- 10 um  | 2   |
| 570491-N3-AA | WM-570 --- --- | 330 GHz to 500 GHz | UG387/U-Mod-PF  | 1.02 mm +/- 10 um  | 2   |

## Offset, Silver - Series 492

| Model      | WG Size        | Frequency band       | Flange          | Length              | QTY |
|------------|----------------|----------------------|-----------------|---------------------|-----|
| 15492-01   | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84-PF        | 6.016 mm +/- 15 um  | 1   |
| 15492-02   | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84-PF        | 12.032 mm +/- 15 um | 1   |
| 15492-03   | WG15 WR112 R84 | 6.58 GHz to 10 GHz   | UBR84-PF        | 18.048 mm +/- 15 um | 1   |
| 17492-01   | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120-PF       |                     | 2   |
| 17492-02   | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120-PF       |                     | 1   |
| 17492-03   | WG17 WR75 R120 | 9.84 GHz to 15 GHz   | UBR120-PF       |                     | 1   |
| 18492-03   | WG18 WR62 R140 | 11.9 GHz to 18 GHz   | UBR140-PF       | 10.003 mm           | 1   |
| 20492-02   | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UBR220-PF       | 4.501 mm +/- 10 um  | 1   |
| 21492-03   | WG21 WR34 R260 | 21.7 GHz to 33 GHz   | UBR260-PF       | 5.472 mm            | 1   |
| 22492-03   | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U-PF     | 4.496 mm +/- 10 um  | 1   |
| 23492-01   | WG23 WR22 R400 | 33 GHz to 50.1 GHz   | UG-383/U-PF     | 1.199 mm +/- 10 um  | 4   |
| 25492-02   | WG25 WR15 R620 | 49.9 GHz to 75.8 GHz | UG-385/U-PF     | 1.587 mm +/- 30 um  | 2   |
| 27492-02   | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-M-PF   | 1.074 mm +/- 20 um  | 1   |
| 27492-01K  | WG27 WR10 R900 | 73.8 GHz to 112 GHz  | UG-387/U-M-PF   | 2.537 mm +/- 24 um  | 1   |
| 29492-00K  | WG29 WR6 R1400 | 114 GHz to 173 GHz   | UG-387/U-M-PF   | 1 mm +/- 10 um      | 1   |
| 32492-N2   | WG32 -- R2600  | 217 GHz to 330 GHz   | UG-387/U-Mod-PF | 1 mm +/- 10 um      | 3   |
| 32492-6875 | WG32 -- R2600  | 220 GHz to 325 GHz   | UG-387/U-Mod-PF | 368.3 um +/- 10 um  | 4   |

## Offset, Gold - Series 493

| Model    | WG Size        | Frequency band       | Flange      | Length   | QTY |
|----------|----------------|----------------------|-------------|----------|-----|
| 16493-02 | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz  | UBR100-PF   | 9.63 mm  | 1   |
| 20493-02 | WG20 WR42 R220 | 17.6 GHz to 26.7 GHz | UG-595/U-PF | 4.501 mm | 1   |
| 22493-01 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U-PF | 1.499 mm | 1   |
| 22493-03 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U-PF | 4.496 mm | 1   |
| 22493-02 | WG22 WR28 R320 | 26.4 GHz to 40.1 GHz | UG-599/U-PF | 2.997 mm | 1   |

## Control Processor - Series CP2021

| Model  | WG Size               | Port 1 Interface (Flange, Connector etc) | Port 2 Interface (Flange, Connector etc) | Port 3 Interface (Flange, Connector etc) | Port 4 Interface (Flange, Connector etc) | QTY |
|--------|-----------------------|--|--|--|--|-----|
| CP2021 | NOT SPECIFIED<br>---- | IEEE488 bus (GPIB)                       |  | 25 pin D type connector                  | 25 pin D type connector                  | 5   |

## Screw Tuner - Series 160

| Model | WG Size        | Frequency band     | Flange (port 1) | Flange (port 2) | QTY |
|-------|----------------|--------------------|-----------------|-----------------|-----|
| 19160 | WG19 WR51 R180 | 14.5 GHz to 22 GHz | UBR180          | UBR180          | 1   |

## Screw Tuner, System Grade - Series 161

| Model | WG Size        | Frequency band      | Flange (port 1) | Flange (port 2) | Housing VSWR | Tuneable VSWR | QTY |
|-------|----------------|---------------------|-----------------|-----------------|--------------|---------------|-----|
| 16161 | WG16 WR90 R100 | 8.2 GHz to 12.5 GHz | UBR100          | UBR100          | 1.036 MAX    | 3.5 MIN       | 1   |
| 18161 | WG18 WR62 R140 | 11.9 GHz to 18 GHz  | UBR140          | UBR140          | 1.036 MAX    | 3.5 MIN       | 1   |

## Septum Polarizer - Series 782

| Model      | WG Size        | Common port frequency band | Common Port Interface (Flange, Connector etc) | In-line Port Interface (Flange, Connector etc) | Ortho Port Interface (Flange, Connector etc) | Cross Polarization | Insertion Loss | QTY |
|------------|----------------|----------------------------|---|--|--|--------------------|----------------|-----|
| 26782-9246 | WG26 WR12 R740 | 71 GHz to 86 GHz           |   | TBD  | TBD  | 28 dB              | 0.5 dB MAX     | 2   |