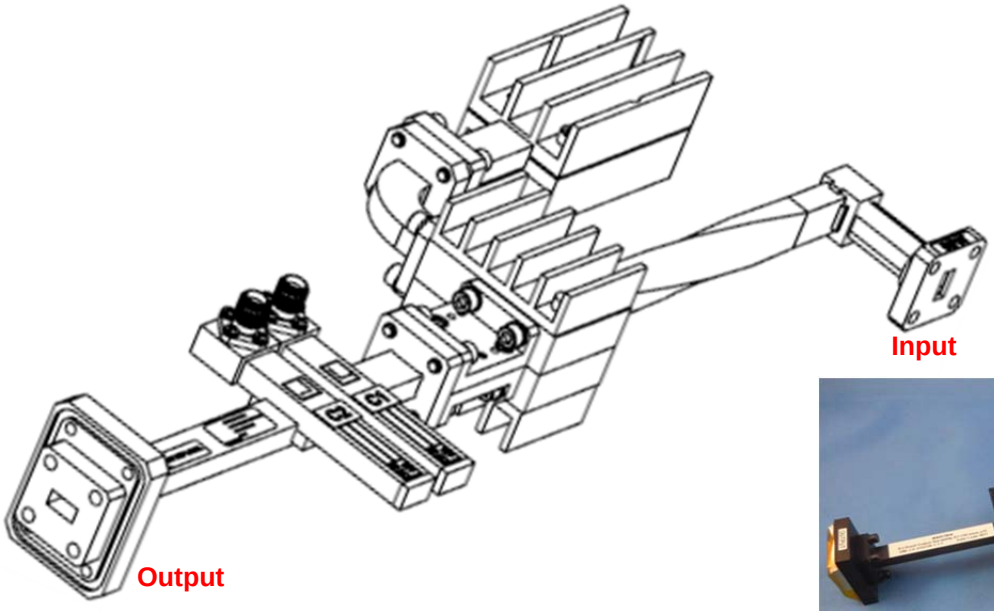
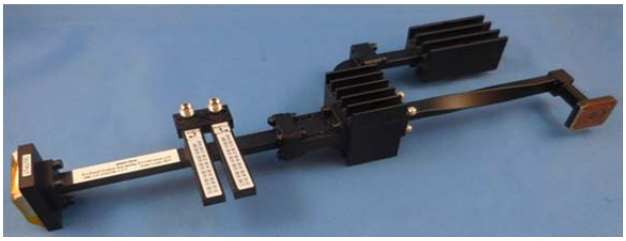
# Ka Band WR28 Waveguide Output Assembly

*Comprising:* ***Output Adapter, 60dBc Harmonic Rejection Filter, Dual Directional Coupler 40dB Forward, 30dB Reverse, Isolator, Twist Waveguide, Flexi Waveguide, 60Watt Termination.***



**Order Examples: RWOA-Ka Band-259.4mm-R1**
**Description: (***Waveguide Output Assembly*, Ka Band 30-31 GHz, *WR28, 259.4mm Long, Rev 1)*
***Comprising****: Output Adapter, 60dBc Harmonic Rejection Filter, Dual Directional Coupler 40dB Forward, 30dB Reverse, Isolator, Twist Waveguide, Flexi Waveguide, 60Watt Termination.*

| Specifications | | Units |
|---|---|---|
| Frequency | 30-31 | GHz |
| Return Loss | 21 | dB |
| Insertion Loss | 0.90 | dB |
| Forward Power | 200 | Watts |
| Reverse Power | 60 | Watts |
| 2nd Harmonic Rejection | 60 | dBc |
| Approx. Weight | 411 | grams |
| Coupler | | |
| Coupling FWD | Coupling - 40 dB±1.0dB Flatness:±0.5 dB | |
| Coupling REV | Coupling - 30 dB±1.0dB Flatness:±0.5 dB | |
| Input Flange (from TWTA) | WR28-Cover-Mil STD 3922/59F, 4X 0.112-40 UNC-2B threaded Insert | |
| Output Flange | WR28-Cover-with O ring groove, 4X M3 mm | |
| Material | Copper Brass Aluminum | |
| Interior Finish | Clear Iridite | |
| Exterior Finish | Flat Black | |



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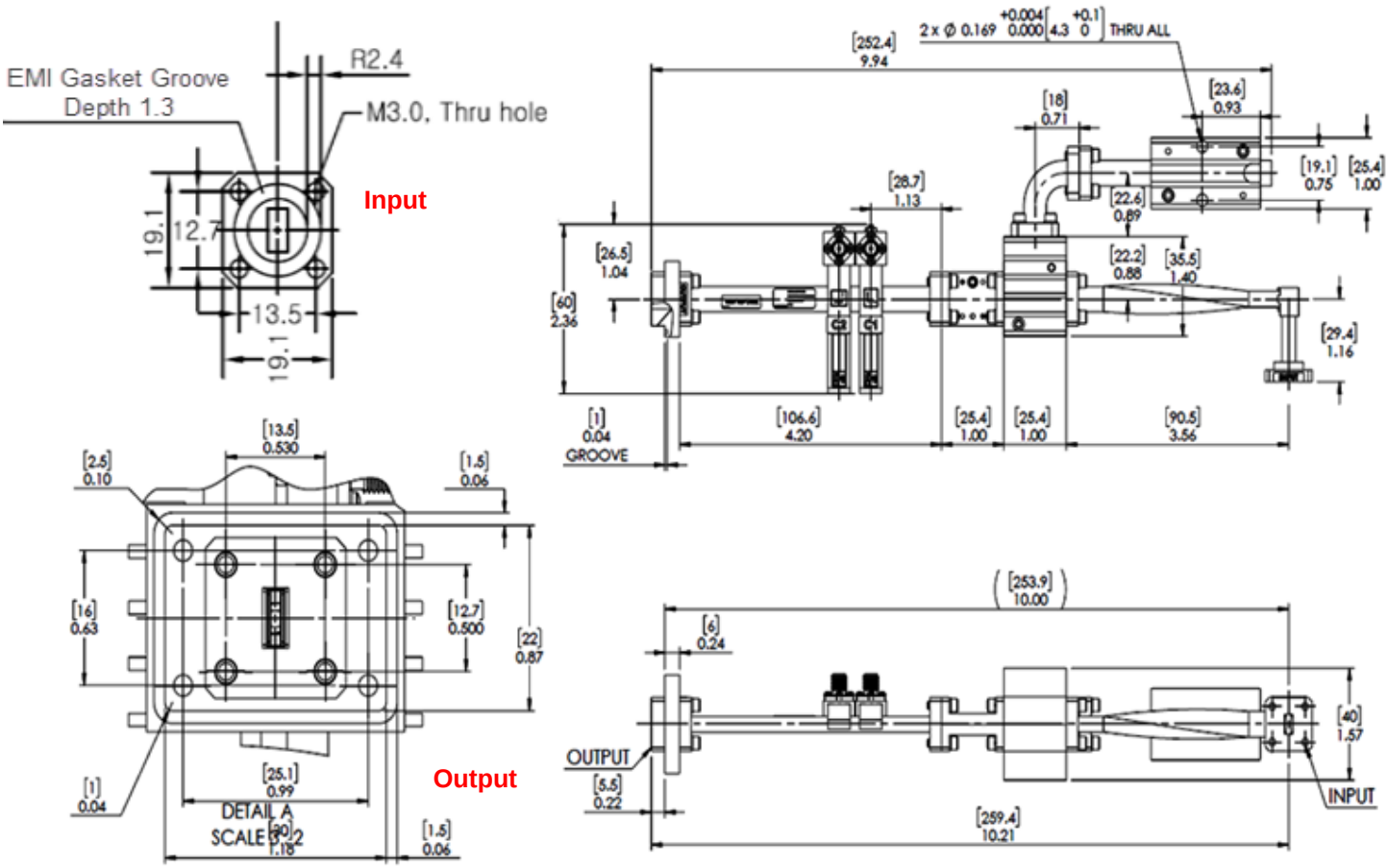


**Tolerance**

Unless otherwise specified
Tolerances are:

| | | |
|---|---|---|
| Up to 6” | .xx ± 0.01 | .xxx ± 0.005 |
| 6-12” | .xx ± 0.02 | .xxx ± 0.010 |
| Over 12” | .xx ±0.03 | .xxx ± 0.015 |
| Angles: | ± ½ degree | |



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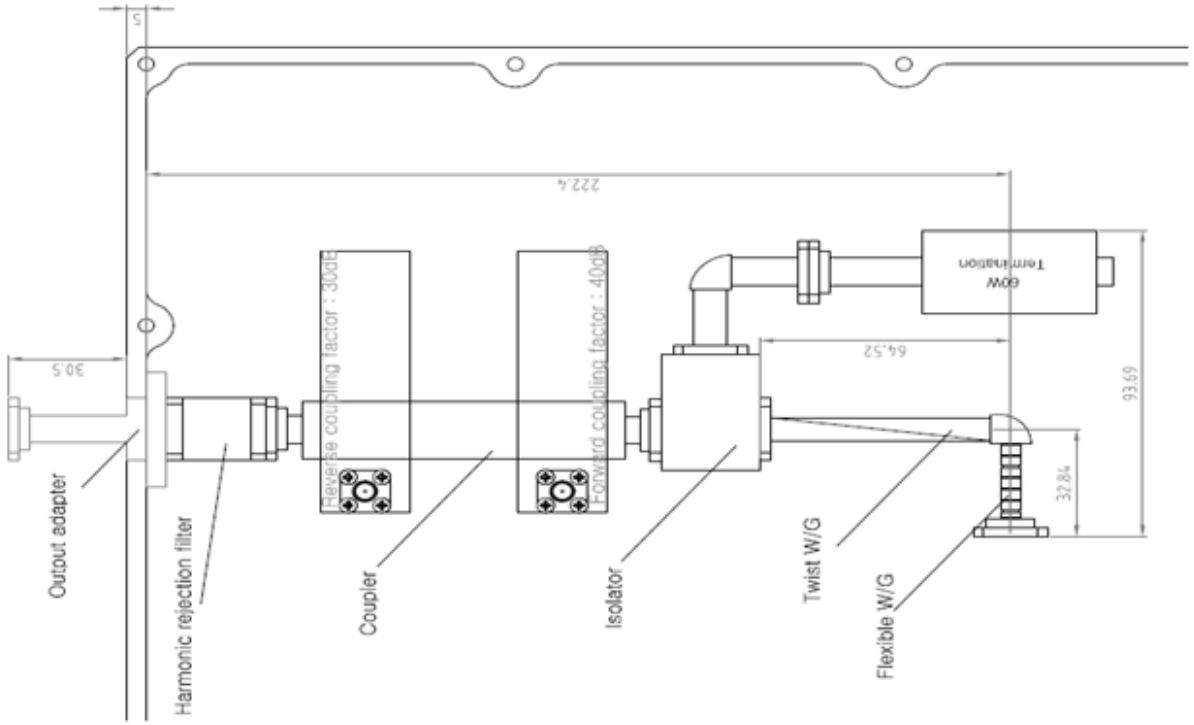


| 1) Harmonic rejection filter | Specs required | Offer | Comply |
|---|---|---|---|
| 2nd harmonic rejection | 60dBc | 60dBc | ✓ |
| Return loss | 20dB Min | 20dB Min | ✓ |
| Insertion Loss | 0.25dB Max | 0.25dB Max | ✓ |
| Power | 200W | 200W | ✓ |

| 2)Isolator | Specs required | Offer | Comply |
|---|---|---|---|
| Return loss | 20dB Min | 20dB Min | ✓ |
| Insertion Loss | 0.25dB Max | 0.25dB Max | ✓ |
| Forward power | 200W | 200W | ✓ |
| Reverse power | 60W | 60W | ✓ |

We can use circulator which one port of a three port circulator is terminated in a matched load.

| 3) Coupler | Specs required | Offer | Comply |
|---|---|---|---|
| Return loss | 20dB Min | 20dB Min | ✓ |
| Insertion Loss | 0.25dB Max | 0.25dB Max | ✓ |
| Forward coupling | 40dB | 40dB | ✓ |
| Reverse coupling | 30dB | 30dB | ✓ |
| Power | 200W | 200W | ✓ |

| 4) Flexible waveguide & twist waveguide | Specs required | Offer | Comply |
|---|---|---|---|
| Power | 200W | 200W | ✓ |
| The total length of flexible waveguide & twist waveguide | might be adjusted | Please advise | |

| 5. Adopter | Specs required | Offer | Comply |
|---|---|---|---|
| The length of adapter should be | 30.5 mm | 30.5 mm | ✓ |
| Please see the below picture for detail | | We can offer hole package | ✓ |



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