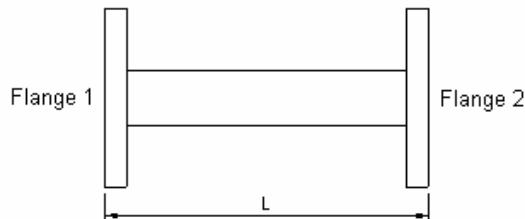
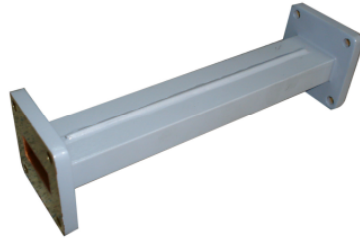




## 11 Waveguide Attenuator

HengDa Microwave offers a series of rectangular waveguide attenuators. Typical Attenuation values are 3dB, 6dB, 10dB, 20dB and 30dB (other attenuation values available, consult sales engineers for details). The assembly construction includes a precision element for optimum electrical performance, but note that Attenuation vs. Frequency can vary greatly depending on the attenuation at a given frequency. Waveguide Fixed Attenuators with normal and high power units are also available. For more information feel free to call us and discuss your needs with one of our sales engineers.

### 11.1 Waveguide Fixed Attenuator



#### 【 Specifications 】

| Model No*   | Freq Range (GHz) | VSWR (Max) | Power (W) | Attenuation** (dB) | WG Type |       | Flange  | Material |
|-------------|------------------|------------|-----------|--------------------|---------|-------|---------|----------|
|             |                  |            |           |                    | IEC     | EIA   |         |          |
| HD-14WFA... | 1.13-1.73        | 1.20       | 2         | 3/6/10/20/30       | R14     | WR650 | FDP/FDM | Al       |
| HD-18WFA... | 1.45-2.20        | 1.20       | 2         | 3/6/10/20/30       | R18     | WR510 | FDP/FDM | Al       |
| HD-22WFA... | 1.72-2.61        | 1.20       | 2         | 3/6/10/20/30       | R22     | WR430 | FDP/FDM | Al/Cu    |
| HD-26WFA... | 2.17-3.30        | 1.20       | 2         | 3/6/10/20/30       | R26     | WR340 | FDP/FDM | Al/Cu    |
| HD-32WFA... | 2.60-3.95        | 1.15       | 2         | 3/6/10/20/30       | R32     | WR284 | FDP/FDM | Al/Cu    |
| HD-40WFA... | 3.22-4.90        | 1.15       | 2         | 3/6/10/20/30       | R40     | WR229 | FDP/FDM | Al/Cu    |
| HD-48WFA... | 3.94-5.99        | 1.15       | 2         | 3/6/10/20/30       | R48     | WR187 | FDP/FDM | Al/Cu    |
| HD-58WFA... | 4.64-7.05        | 1.15       | 2         | 3/6/10/20/30       | R58     | WR159 | FDP/FDM | Al/Cu    |
| HD-70WFA... | 5.38-8.17        | 1.15       | 2         | 3/6/10/20/30       | R70     | WR137 | FDP/FDM | Al/Cu    |



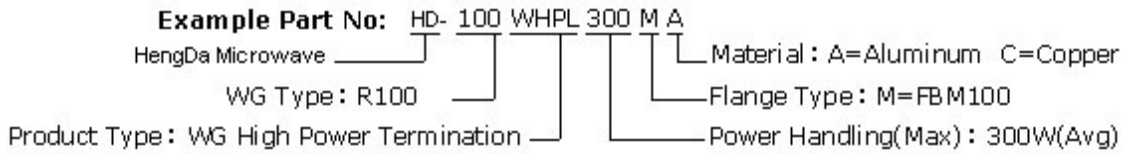
|             |            |      |   |              |      |       |            |       |
|-------------|------------|------|---|--------------|------|-------|------------|-------|
| HD-84WFA... | 6.57-9.99  | 1.15 | 2 | 3/6/10/20/30 | R84  | WR112 | FBP/FBM/FB | Al/Cu |
| HD-100WFA   | 8.20-12.40 | 1.15 | 2 | 3/6/10/20/30 | R100 | WR90  | FBP/FBM/FB | Al/Cu |
| HD-120WFA   | 9.84-15.0  | 1.15 | 2 | 3/6/10/20/30 | R120 | WR75  | FBP/FBM/FB | Al/Cu |
| HD-140WFA   | 11.9-18.0  | 1.15 | 2 | 3/6/10/20/30 | R140 | WR62  | FBP/FBM/FB | Al/Cu |
| HD-180WFA   | 14.5-22.0  | 1.15 | 2 | 3/6/10/20/30 | R180 | WR51  | FBP/FBM/FB | Al/Cu |
| HD-220WFA   | 17.6-26.7  | 1.20 | 2 | 3/6/10/20/30 | R220 | WR42  | FBP/FBM/FB | Al/Cu |
| HD-260WFA   | 21.7-33.0  | 1.20 | 2 | 3/6/10/20/30 | R260 | WR34  | FBP/FBM/FB | Al/Cu |
| HD-320WFA   | 26.3-40.0  | 1.20 | 2 | 3/6/10/20/30 | R320 | WR28  | FBP/FBM/FB | Al/Cu |

*\*Indicates Model Number. See Ordering Information for complete part number.*

*\*\* Nominal Attenuation Accuracy:  $\pm 0.5\text{dB}$*

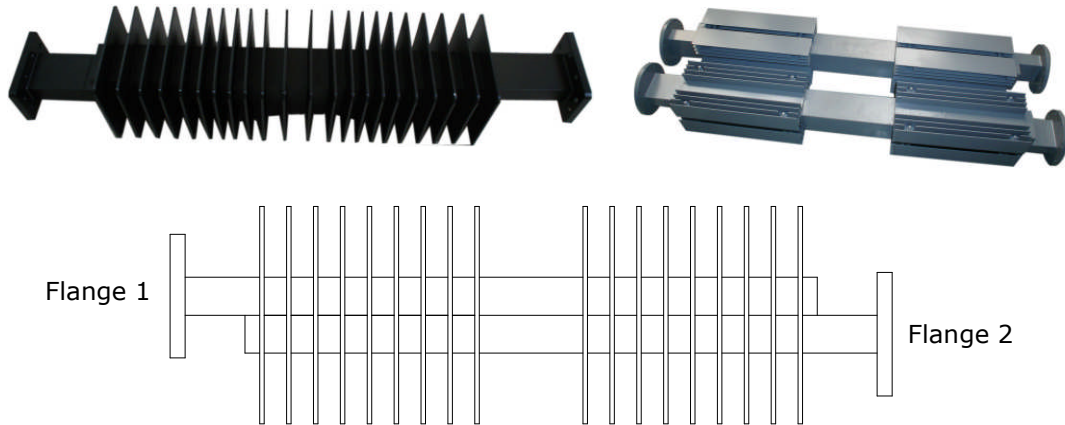
*Frequency Sensitivity:  $\pm 0.7\text{dB}$*

**【Ordering Information】**



- Flange type: Multiple types available - see HengDa Microwave Flanges page
- Finish: Corrosion protection plus black top coat

**11.2 Waveguide High Power Fixed Attenuator**



**【Specifications】**



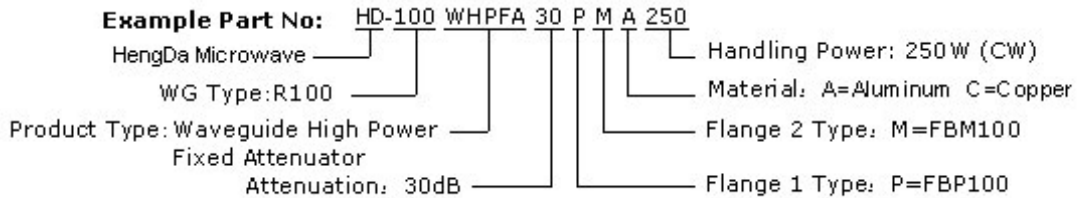
| Model No*     | Freq Range (GHz) | VSWR (Max) | Power (W) | Attenuation** (dB) | WG Type |       | Flange     | Material |
|---------------|------------------|------------|-----------|--------------------|---------|-------|------------|----------|
|               |                  |            |           |                    | IEC     | EIA   |            |          |
| HD-48WHPFA... | 5.4-5.9          | 1.25       | 50        | 10/20              | R48     | WR187 | FDP/FDM    | Al/Cu    |
| HD-70WHPFA... | 5.85-7.025       | 1.20       | 500       | 55                 | R70     | WR137 | FDP/FDM    | Al/Cu    |
| HD-100WHPFA   | 8.5-9.6          | 1.10       | 250       | 10                 | R100    | WR90  | FBP/FBM/FB | Al/Cu    |
| HD-120WHPFA   | 9.84-15.0        | 1.15       | 50        | 10/20/30           | R120    | WR75  | FBP/FBM/FB | Al/Cu    |
| HD-140WHPFA   | 14.5-15.5        | 1.25       | 100       | 40                 | R140    | WR62  | FBP/FBM/FB | Al/Cu    |
| HD-320WHPFA   | 26.3-40.0        | 1.25       | 20        | 10                 | R320    | WR28  | FBP/FBM/FB | Al/Cu    |

\*Indicates Model Number. See Ordering Information for complete part number.

\*\* Nominal Attenuation Accuracy:  $\pm 0.5dB$

Frequency Sensitivity:  $\pm 0.7dB$

**【Ordering Information】**



- Flange type: Multiple types available - see HengDa Microwave Flanges page
- Finish: Corrosion protection plus black top coat