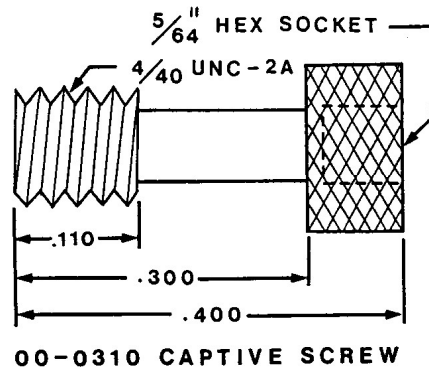
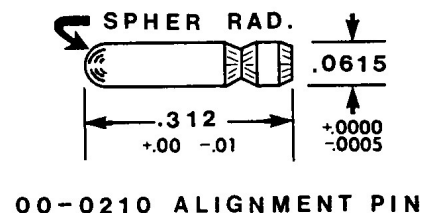
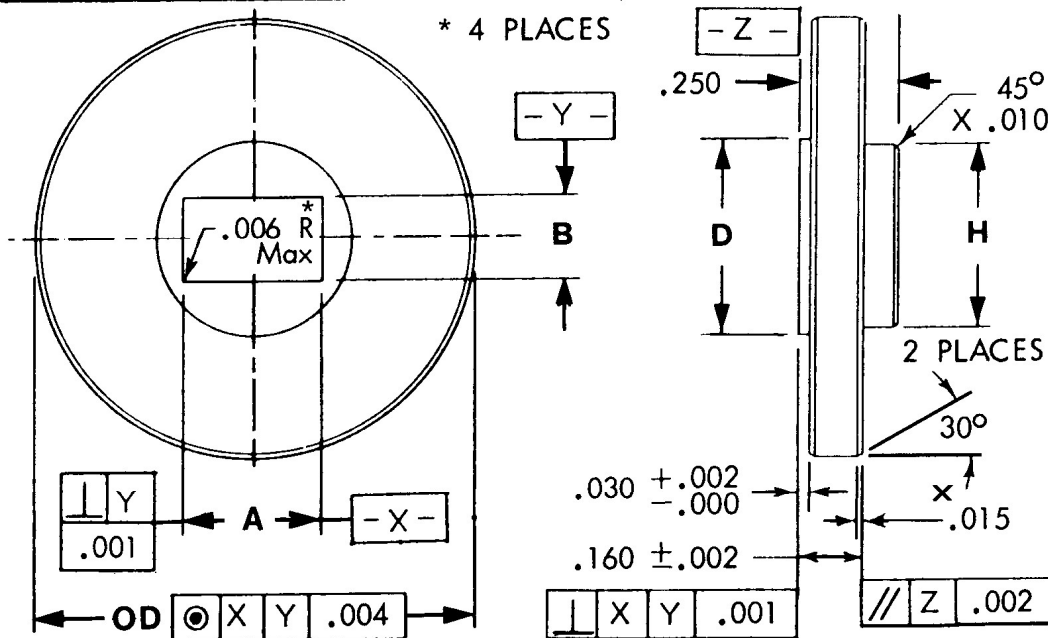




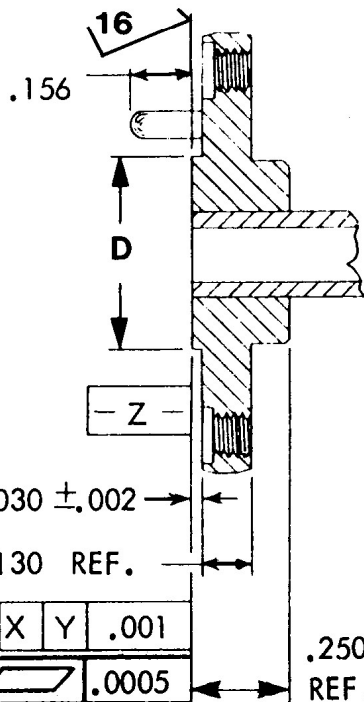
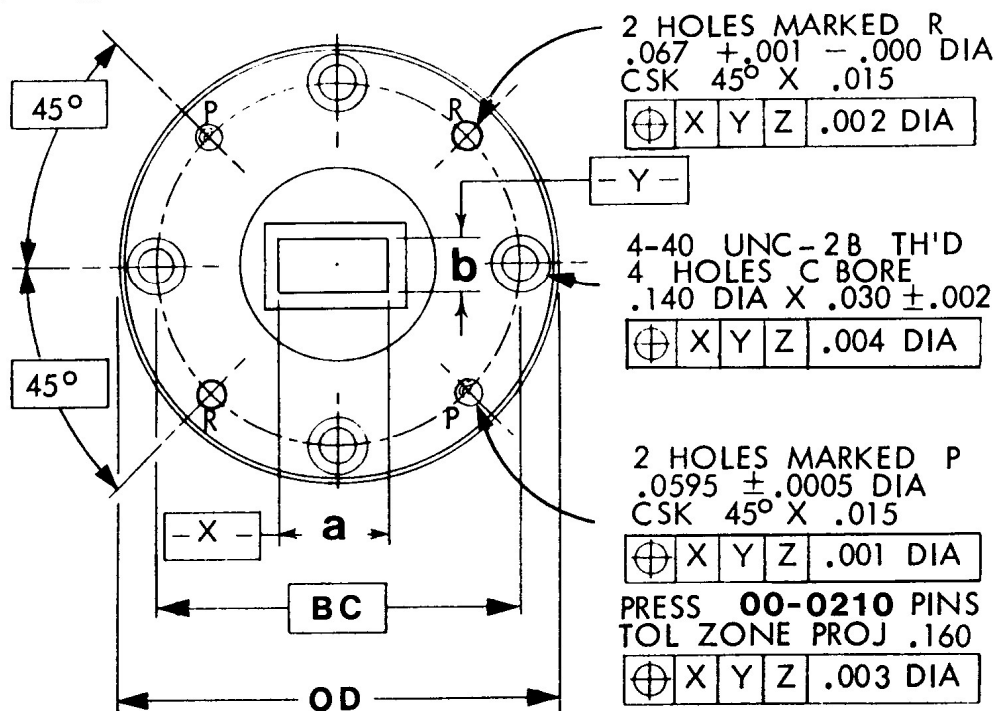


| RECTANGULAR TE <sub>10</sub> WAVEGUIDE INFORMATION |                        |            |                           |                     |                      | MOST COMMON MATING FLANGES TO MILLIMETER WAVEGUIDE      |                                                       |                             |                              |                                                      |                                                       |                                            |
|----------------------------------------------------|------------------------|------------|---------------------------|---------------------|----------------------|---------------------------------------------------------|-------------------------------------------------------|-----------------------------|------------------------------|------------------------------------------------------|-------------------------------------------------------|--------------------------------------------|
| EIA                                                | FREQUENCIES IN GHz.    |            |                           | WAVEGUIDE DIM.      |                      | FLANGE TYPES AND DESCRIPTIVE INTERFACE STANDARDS        |                                                       |                             |                              |                                                      |                                                       |                                            |
| WR<br>##                                           | WAVEGUIDE<br>BANDWIDTH | CUT<br>OFF | LOSS dB/FT.<br>LOW - HIGH | INSIDE<br>"a" - "b" | OUTSIDE<br>"A" - "B" | MIL. SPECS<br>MIL.-F-3922                               | DESCRIPTIVE FLANGE INFORMATION                        |                             |                              |                                                      |                                                       | AEROWAVE<br>STANDARD                       |
|                                                    |                        |            |                           |                     |                      |                                                         | SIZE - TYPE                                           | FACE                        | JOINT                        | CONNECTIVE                                           | ALIGNMENT                                             |                                            |
| 42                                                 | 18.00 - 26.50          | 14.08      | .26 - .20                 | .420 - .170         | .500 - .250          | /68 - 001KM<br>/68 - 002KM<br>/68 - 003KM<br>/67B - 004 | .875 - SQ.<br>.875 - SQ.<br>.875 - SQ.<br>1.125 - RD. | CVR.<br>CVR.<br>"O"<br>CNT. | BUTT<br>BUTT<br>BUTT<br>F/T. | CLR. HOLES<br>THD. HOLES<br>THD. HOLES<br>THD. HOLES | PUSH A/PIN<br>PUSH A/PIN<br>PUSH A/PIN<br>FIXED A/PIN | → 42-0101<br>42-0102<br>42-0103<br>42-0110 |
| 28                                                 | 26.50 - 40.00          | 21.07      | .44 - .30                 | .280 - .140         | .360 - .220          | /68 - 001AM<br>/68 - 002AM<br>/68 - 003AM<br>/67B - 005 | .750 - SQ.<br>.750 - SQ.<br>.750 - SQ.<br>1.125 - RD. | CVR.<br>CVR.<br>"O"<br>CNT. | BUTT<br>BUTT<br>BUTT<br>F/T. | CLR. HOLES<br>THD. HOLES<br>THD. HOLES<br>THD. HOLES | PUSH A/PIN<br>PUSH A/PIN<br>PUSH A/PIN<br>FIXED A/PIN | → 28-0101<br>28-0102<br>28-0103<br>28-0110 |
| 22                                                 | 33.00 - 50.00          | 26.34      | .62 - .42                 | .224 - .112         | .304 - .192          | /68 - 001QM<br>/68 - 002QM<br>/68 - 003QM<br>/67B - 006 | .750 - SQ.<br>.750 - SQ.<br>.750 - SQ.<br>1.125 - RD. | CVR.<br>CVR.<br>"O"<br>CNT. | BUTT<br>BUTT<br>BUTT<br>F/T. | CLR. HOLES<br>THD. HOLES<br>THD. HOLES<br>THD. HOLES | PUSH A/PIN<br>PUSH A/PIN<br>PUSH A/PIN<br>FIXED A/PIN | 22-0101<br>22-0102<br>22-0103<br>→ 22-0110 |
| 19                                                 | 40.00 - 60.00          | 31.41      | .77 - .54                 | .188 - .094         | .268 - .174          | /68 - 001UM<br>/68 - 002UM<br>/68 - 003UM<br>/67B - 007 | .750 - SQ.<br>.750 - SQ.<br>.750 - SQ.<br>1.125 - RD. | CVR.<br>CVR.<br>"O"<br>CNT. | BUTT<br>BUTT<br>BUTT<br>F/T. | CLR. HOLES<br>THD. HOLES<br>THD. HOLES<br>THD. HOLES | PUSH A/PIN<br>PUSH A/PIN<br>PUSH A/PIN<br>FIXED A/PIN | 19-0101<br>19-0102<br>19-0103<br>→ 19-0110 |
| 15                                                 | 50.00 - 75.00          | 39.86      | 1.0 - .80                 | .148 - .074         | .228 - .154          | /67B - 008                                              | .750 - RD.                                            | CNT.                        | F/T.                         | THD. HOLES                                           | FIXED A/PIN                                           | → 15-0120                                  |
| 12                                                 | 60.00 - 90.00          | 48.35      | 1.8 - 1.0                 | .122 - .061         | .202 - .141          | /67B - 009                                              | .750 - RD.                                            | CNT.                        | F/T.                         | THD. HOLES                                           | FIXED A/PIN                                           | → 12-0120                                  |
| 10                                                 | 75.00 - 110.0          | 59.05      | 2.0 - 1.4                 | .100 - .050         | .180 - .130          | /67B - 010                                              | .750 - RD.                                            | CNT.                        | F/T.                         | THD. HOLES                                           | FIXED A/PIN                                           | → 10-0120                                  |
| 08                                                 | 90.00 - 140.0          | 73.84      | 3.0 - 2.0                 | .080 - .040         | .160 - .120          | /67B - M08<br>/74 - 001                                 | .750 - RD.<br>.375 - RD.                              | CNT.<br>CNT.                | F/T.<br>F/T.                 | THD. HOLES<br>COUPLINGS                              | FIXED A/PIN<br>FIXED A/PIN                            | 08-0120<br>→ 08-0130                       |
| 06                                                 | 110.0 - 170.0          | 90.84      | 3.2 - 2.7                 | .0650 - .0325       | .145 - .112          | /67B - M06<br>/74 - 002                                 | .750 - RD.<br>.375 - RD.                              | CNT.<br>CNT.                | F/T.<br>F/T.                 | THD. HOLES<br>COUPLINGS                              | FIXED A/PIN<br>FIXED A/PIN                            | 06-0120<br>→ 06-0130                       |
| 05                                                 | 140.0 - 220.0          | 115.75     | 6.1 - 3.8                 | .0510 - .0255       | .131 - .105          | /67B - M05<br>/74 - 003                                 | .750 - RD.<br>.375 - RD.                              | CNT.<br>CNT.                | F/T.<br>F/T.                 | THD. HOLES<br>COUPLINGS                              | FIXED A/PIN<br>FIXED A/PIN                            | 05-0120<br>→ 05-0130                       |
| 04                                                 | 170.0 - 260.0          | 137.52     | 7.7 - 5.0                 | .0430 - .0215       | .123 - .101          | /67B - M04<br>/74 - 004                                 | .750 - RD.<br>.375 - RD.                              | CNT.<br>CNT.                | F/T.<br>F/T.                 | THD. HOLES<br>COUPLINGS                              | FIXED A/PIN<br>FIXED A/PIN                            | 04-0120<br>→ 04-0130                       |
| 03                                                 | 220.0 - 325.0          | 173.28     | 10.0 - 7.0                | .0340 - .0170       | .114 - .097          | /67B - M03<br>/74 - 005                                 | .750 - RD.<br>.375 - RD.                              | CNT.<br>CNT.                | F/T.<br>F/T.                 | THD. HOLES<br>COUPLINGS                              | FIXED A/PIN<br>FIXED A/PIN                            | 03-0120<br>→ 03-0130                       |



( ) ( ) - 0110, - 0120 ROUND CONTACT FLANGE BLANK

| TE <sub>10</sub> FREQUENCY in GHz.                                      | 18.0<br>26.5 | 26.5<br>40.0 | 33.0<br>50.0 | 40.00<br>60.00 | 50.0<br>75.0 | 60.0<br>90.0 | 75.0<br>110.0 | 90.0<br>140.0 | 110.0<br>170.0 | 140.0<br>220.0 | 170.0<br>260.0 | 220.0<br>325.0 |
|-------------------------------------------------------------------------|--------------|--------------|--------------|----------------|--------------|--------------|---------------|---------------|----------------|----------------|----------------|----------------|
| <i>Aerowave</i> FLANGE #                                                | 42-0110      | 28-0110      | 22-0110      | 19-0110        | 15-0120      | 12-0120      | 10-0120       | 08-0120       | 06-0120        | 05-0120        | 04-0120        | 03-0120        |
| EIA WAVEGUIDE WR - (#) (#)                                              | 42           | 28           | 22           | 19             | 15           | 12           | 10            | 08            | 06             | 05             | 04             | 03             |
| MIL. F3922/67B-                                                         | 004          | 005          | 006          | 007            | 008          | 009          | 010           | M08           | M06            | M05            | M04            | M03            |
| W/G "A" Tol. $\pm \begin{smallmatrix} .002 \\ .000 \end{smallmatrix}$   | .502         | .362         | .306         | .270           | .230         | .204         | .182          | .161          | .146           | .132           | .124           | .115           |
| W/G "B" Tol. $\pm \begin{smallmatrix} .002 \\ .000 \end{smallmatrix}$   | .252         | .222         | .194         | .176           | .156         | .143         | .132          | .121          | .113           | .106           | .102           | .098           |
| Boss "D" Tol. $\pm \begin{smallmatrix} .005 \\ .005 \end{smallmatrix}$  | .625         | .500         |              |                |              |              |               |               |                |                |                |                |
| Hub - "H" Tol. $\pm \begin{smallmatrix} .005 \\ .005 \end{smallmatrix}$ | .625         | .468         |              |                |              |              |               |               |                |                |                |                |
| Rd. OD Tol. $\pm \begin{smallmatrix} .000 \\ .002 \end{smallmatrix}$    |              | 1.125        |              |                |              |              |               |               |                |                |                |                |
| Rd. BC Tol. Basic                                                       |              | .9375        |              |                |              |              |               |               |                |                |                |                |



DIMENSIONS OF MACHINED AND PINNED FLANGED WAVEGUIDE ASSEMBLY.





| TE <sub>10</sub> FREQUENCY IN GHz | 18.0<br>26.5 | 26.5<br>40.0 | 33.0<br>50.0 | 40.00<br>60.00 | 50.0<br>75.0 | 80.0<br>90.0 | 75.0<br>110.0 | 90.0<br>140.0 | 110.0<br>170.0 | 140.0<br>220.0 | 170.0<br>260.0 | 220.0<br>325.0 |
|-----------------------------------|--------------|--------------|--------------|----------------|--------------|--------------|---------------|---------------|----------------|----------------|----------------|----------------|
| AEROWAVE FLANGE INTERFACE         | 42-0101      | 28-0101      | 22-0110      | 19-0110        | 15-0120      | 12-0120      | 10-0120       | 08-0130       | 06-0130        | 05-0130        | 04-0130        | 03-0130        |
| EIA WAVEGUIDE WR- (##)            | 42           | 28           | 22           | 19             | 15           | 12           | 10            | 08            | 06             | 05             | 04             | 03             |

| SIZE | 42 - 0101 | 28 - 0101 | 22 - 0101 | 19 - 0101 |
|------|-----------|-----------|-----------|-----------|
| a    | .420      | .280      | .224      | .188      |
| b    | .170      | .140      | .112      | .094      |
| Ha   | .640      | .500      | .500      | .500      |
| Hb   | .670      | .530      | .530      | .530      |
| SQ   | .875      | .750      | .750      | .750      |
| P    | .750      | .656      | .656      | .656      |

| SIZE | 42 - 0110 | 28, 22, 19 - 0110 | 15 Thru 03 - 0120 |
|------|-----------|-------------------|-------------------|
| a    | .420      | "a" W/G Dim.      | "a" W/G Dim.      |
| b    | .170      | "b" W/G Dim.      | "b" W/G Dim.      |
| B    | .9375     | .9375             | .5625             |
| D    | 1.125     | 1.125             | .750              |
| E    | .625      | .500              | .375              |

