

## SPECIFICATIONS

### ELECTRICAL

|                      |                            |
|----------------------|----------------------------|
| FREQUENCY RANGE      | DC - 3 GHz, 6 GHz & 8 GHz  |
| AVAILABLE dB VALUES  | 1 - 10, 20, 30, 40 & 50 dB |
| ATTENUATION ACCURACY | DC-6GHz 6-8 GHz            |
| 1 - 6 dB             | ±0.3 dB ±0.5 dB            |
| 7 - 10 & 20 dB       | ±0.5 dB ±0.75 dB           |
| 30 dB                | ±0.75 dB ±1.00 dB          |
| 40 dB                | ±1.00 dB ±1.25 dB          |
| 50 dB                | ±1.25 dB NA                |

### VSWR

|            |            |
|------------|------------|
| DC - 6 GHz | 1.20:1 MAX |
| 6 - 8 GHz  | 1.30:1 MAX |

|                      |                                                   |
|----------------------|---------------------------------------------------|
| INPUT POWER          | 25 WATTS AVG. @ 25°C                              |
| PEAK POWER           | DERATED LINEARLY TO 10 WATTS @ 125°C<br>500 WATTS |
| IMPEDANCE            | (8uSec PULSE, 0.99% DUTY CYCLE)<br>50 OHMS        |
| OPERATING TEMP RANGE | -65°C TO +125°C                                   |

### MECHANICAL

|            |                                                  |
|------------|--------------------------------------------------|
| CONNECTORS | BRASS, SILVER OR WHITE BRONZE PLATED             |
| CONDUCTORS | SILVER PLATED BERYLLIUM COPPER OR PHOSFOR BRONZE |
| HOUSING    | BLACK ANODIZED ALUMINUM                          |

### ORDERING INFORMATION

|                    |                                      |
|--------------------|--------------------------------------|
| 7682-6525-FQ-DB    | TYPE N MALE INPUT TO FEMALE OUTPUT   |
| 7681-6525-FQ-DB    | TYPE N MALE INPUT TO MALE OUTPUT     |
| 7680-6525-FQ-DB    | TYPE N FEMALE INPUT TO FEMALE OUTPUT |
| 7682-6525-FQ-FM-DB | TYPE N FEMALE INPUT TO MALE OUTPUT   |

TO DESIGNATE MAX FREQUENCY REPLACE "FQ" WITH:  
 ".03" = 3 GHz; ".06" = 6 GHz; ".08" = 8 GHz

THIS 25 WATT UNIT IS AVAILABLE WITH:  
 SMA, TNC, AND TYPE N CONNECTORS  
 AND AS AN TERMINATION - CONTACT YOUR  
 REPRESENTATIVE FOR ORDERING INFORMATION

### ORDERING EXAMPLES

|                                               |                    |
|-----------------------------------------------|--------------------|
| A 10dB UNIT MALE TO FEMALE FOR 6 GHz WOULD BE | 7682-6525-06-10    |
| A 20dB UNIT MALE TO MALE FOR 8 GHz WOULD BE   | 7681-6525-08-20    |
| A 3dB UNIT FEMALE TO MALE FOR 3 GHz WOULD BE  | 7682-6525-03-FM-03 |

### NOTES:

UNIT IS BIDIRECTIONAL.

50 dB UNIT IS AVAILABLE TO 6GHz ONLY.

## PRODUCTION RELEASE

NOTE:  
THIS DRAWING INCORPORATES  
THIRD ANGLE PROJECTION.  
INTERPRET IAW ANSI Y14.5-1992

### REVISIONS

| LTR | DESCRIPTION | DATE       | APPROVED    |
|-----|-------------|------------|-------------|
| C   | RELEASED    | 07/21/2011 | D. SAUNDERS |

7680-6525-FQ-DB 7681-6525-FQ-DB

QUANTITY OF HEATSINK FINS, THICKNESS AND FIN  
 SPACING MAY VARY WITHOUT NOTICE. BASIC SHAPE  
 & OTHER PARAMETERS SHALL REMAIN AS  
 DIMENSIONED.

XMA OPTION TO PROVIDE  
 NUT WITH OR WITHOUT  
 WRENCH FLATS IN FUTURE

4X 4-40 UNC-2B  
 THRU ONE WALL ONLY  
 BOTH SIDES

Standard Is METALIZED  
 MYLAR LABEL (2 MIN.)  
 AFFIXED PERMANANTLY  
 FOR INFO & IDENTIFICATION

|                                                               |
|---------------------------------------------------------------|
| DRAWING PRACTICES PER ANSI-Y14.5<br>NIL-STD-100 & 1000        |
| DIMENSIONS ARE IN INCHES AND<br>APPLY BEFORE/AFTER PROCESSING |
| SURFACE<br>ROUGHNESS<br>INCHES                                |
| FINISH<br>SEE NOTES                                           |
| MATERIAL<br>SEE NOTES                                         |

|                                              |
|----------------------------------------------|
| UNLESS OTHERWISE SPECIFIED<br>TOLERANCES IN: |
| DECIMALS INCH DIM                            |
| .X" .1" [2.5]                                |
| .XX" .050" [1.3]                             |
| .XXX" .020 [54]                              |
| .XXXX" ANGLES                                |

UNLESS OTHERWISE NOTED  
 DIAS CONCENTRIC <.003 T.I.R.

|                                                                                                                                                                                                                                                                                        |                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| DRAWN<br>D. Saunders                                                                                                                                                                                                                                                                   | DATE<br>07/14/2011 |
| CHECKED<br>D. Saunders                                                                                                                                                                                                                                                                 | DATE<br>07/14/2011 |
| ENGINEER APPR.<br>D. Saunders                                                                                                                                                                                                                                                          | DATE<br>07/14/2011 |
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|                                       |            |
|---------------------------------------|------------|
| <b>XMA</b>                            | Powered by |
| Omni Spectra®                         |            |
| Phone: 603-222-2256 Fax: 603-222-2259 |            |
| 150 Dow Street, Manchester, NH 03101  |            |

TITLE  
**OUTLINE DRAWING ATTENUATOR**  
 25 W, DIN 7/16 M/F, Up To 8 GHz

|              |                      |                                   |
|--------------|----------------------|-----------------------------------|
| SIZE<br>B    | CAGE CODE<br>3HT76   | DRAWING NUMBER<br>768X-6525-FQ-DB |
| SCALE<br>1:1 | PLATE<br>AREA SQ. IN | SHEET 1 OF 1                      |

BCS1