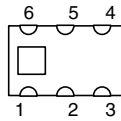
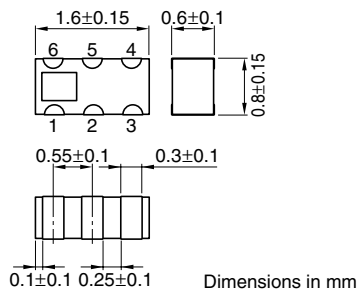


Multilayer Diplexers, DPX Series

DPX161990DT-8003B1

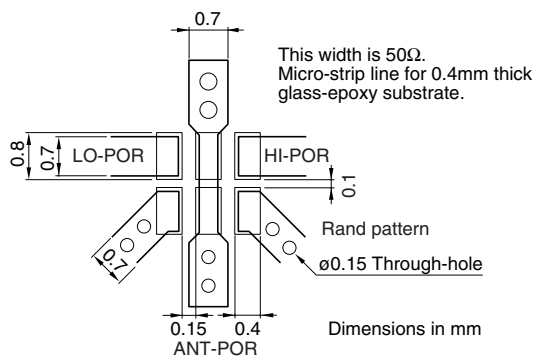
SHAPES AND DIMENSIONS/CIRCUIT



TERMINAL FUNCTIONS

| | |
|---|------|
| 1 | GND |
| 2 | ANT |
| 3 | GND |
| 4 | HIGH |
| 5 | GND |
| 6 | LOW |

RECOMMENDED PCB PATTERN



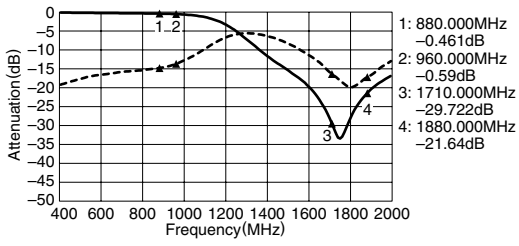
ELECTRICAL CHARACTERISTICS

| Item | Port | Frequency range | | Minimum value | Typical value | Maximum value |
|-------------------|---------|-----------------|------|---------------|---------------|---------------|
| Insertion loss | Lo-band | 824 to 960MHz | (dB) | — | — | 0.7 |
| | Hi-band | 1710 to 1990MHz | (dB) | — | — | 0.85 |
| Return loss | ANT | 824 to 960MHz | (dB) | 10.0 | — | — |
| | ANT | 1710 to 1990MHz | (dB) | 10.0 | — | — |
| Attenuation | Hi-band | 824 to 960MHz | (dB) | 17.0 | — | — |
| | Lo-band | 1710 to 1990MHz | (dB) | 15.0 | — | — |
| Temperature range | | Operating | (°C) | -40 | — | +85°C |
| | | Storage | (°C) | -40 | — | +85°C |

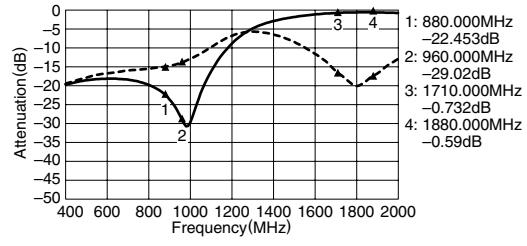
• Ta: +25°C

FREQUENCY CHARACTERISTICS

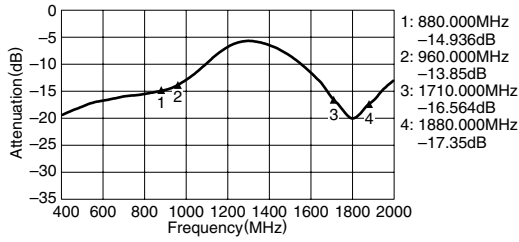
Lo-BAND PORT S21



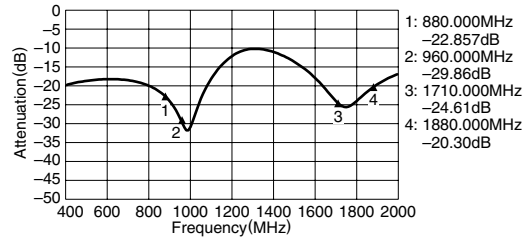
Hi-BAND PORT S31



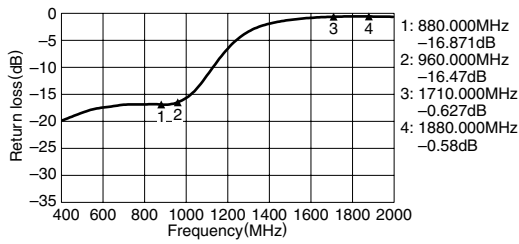
COMMON PORT RETURN LOSS S11



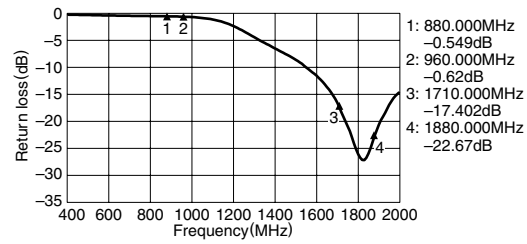
ISORATION S23



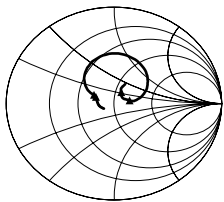
Lo-BAND PORT RETURN LOSS S22



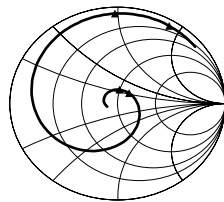
Hi-PORT RETURN LOSS S33



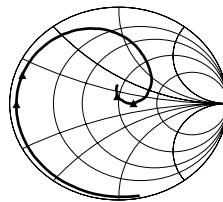
SMITH CHART



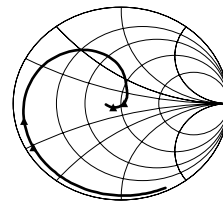
S11



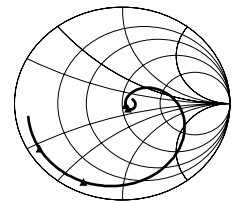
S22



S33



S21

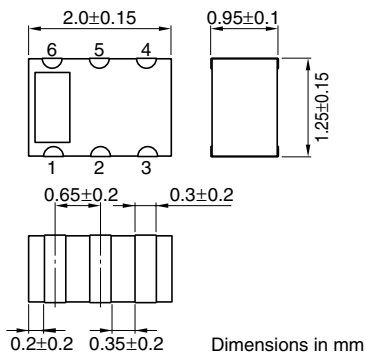


S31

Multilayer Diplexers, DPX Series

DPX201578DT-4017A1

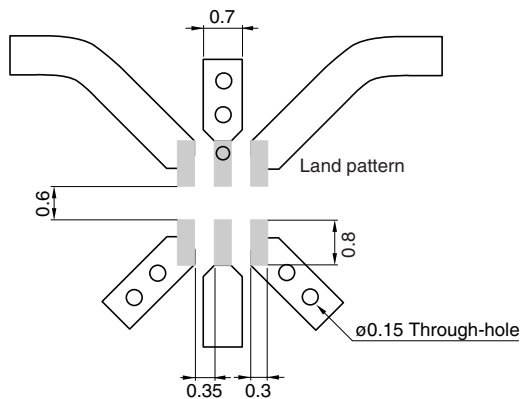
SHAPES AND DIMENSIONS/CIRCUIT



TERMINAL FUNCTIONS

| | |
|---|------|
| 1 | GND |
| 2 | ANT |
| 3 | GND |
| 4 | HIGH |
| 5 | GND |
| 6 | LOW |

RECOMMENDED PCB PATTERN



Line width be designed to match 50Ω characteristic impedance depending on PCB material and thickness.

Dimensions in mm

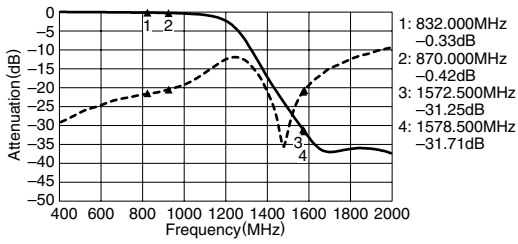
ELECTRICAL CHARACTERISTICS

| Item | Port | Frequency range | Minimum value | Typical value | Maximum value |
|-------------------|-----------|-----------------------------------------|---------------|---------------|---------------|
| Insertion loss | Lo-band | 823 to 925MHz (dB) | — | — | 0.55 |
| | Lo-band | [−40 to +85°C] 823 to 925MHz (dB) | — | — | 0.65 |
| | Hi-band | 1572.5 to 1578.5MHz (dB) | — | — | 0.60 |
| | Hi-band | [−40 to +85°C] 1572.5 to 1578.5MHz (dB) | — | — | 0.70 |
| VSWR | ANT | 823 to 925MHz | — | — | 1.60 |
| | ANT | 1572.5 to 1578.5MHz | — | — | 1.60 |
| | Lo-band | 823 to 925MHz | — | — | 1.60 |
| Attenuation | Hi-band | 823 to 925MHz (dB) | 25.0 | — | — |
| | Lo-band | 1572.5 to 1578.5MHz (dB) | 23.0 | — | — |
| Temperature range | Operating | (°C) | −40 | — | +85°C |
| | Storage | (°C) | −40 | — | +85°C |

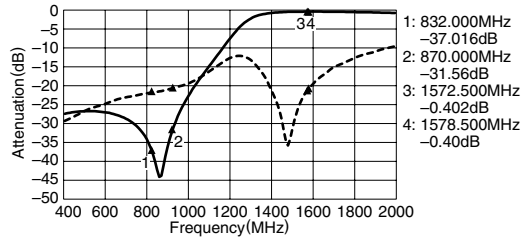
• Ta: +25°C

FREQUENCY CHARACTERISTICS

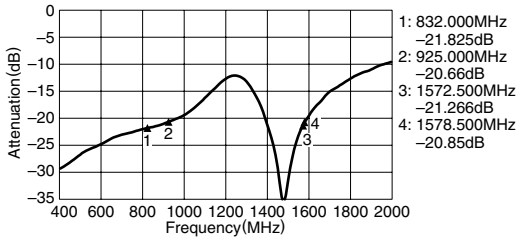
Lo-BAND PORT S21



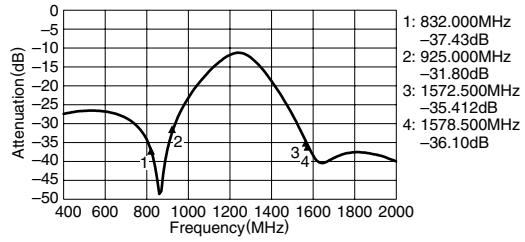
Hi-BAND PORT S31



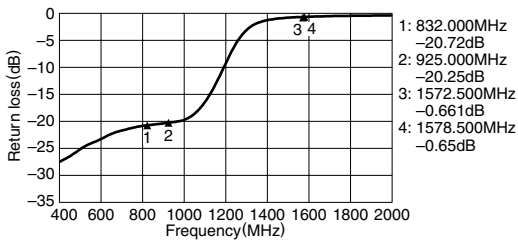
COMMON PORT RETURN LOSS S11



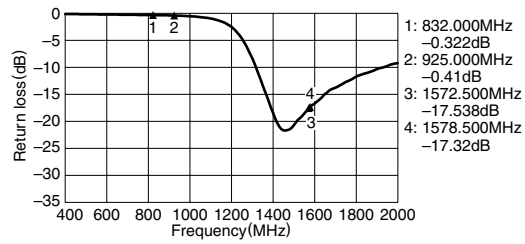
ISORATION S23



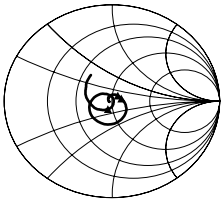
Lo-BAND PORT RETURN LOSS S22



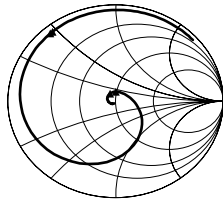
Hi-PORT RETURN LOSS S33



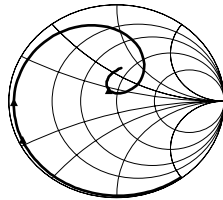
SMITH CHART



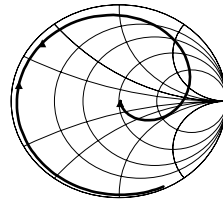
S11



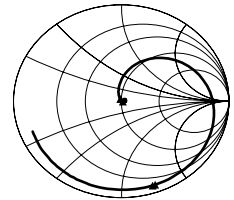
S22



S33



S21

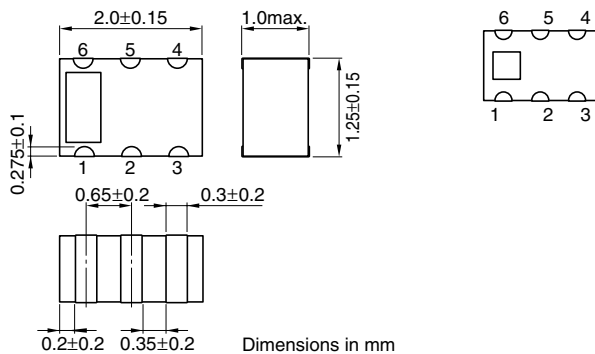


S31

Multilayer Diplexers, DPX Series

DPX201990DT-4011D1

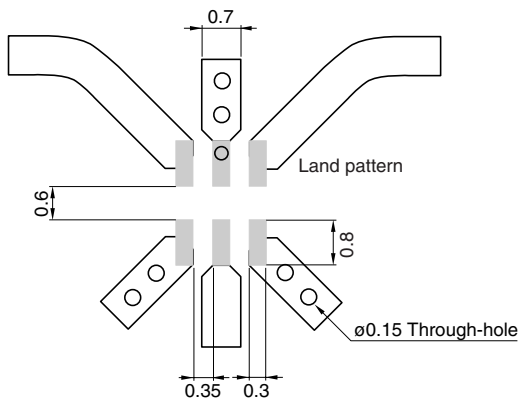
SHAPES AND DIMENSIONS/CIRCUIT



TERMINAL FUNCTIONS

| | |
|---|------|
| 1 | GND |
| 2 | ANT |
| 3 | GND |
| 4 | HIGH |
| 5 | GND |
| 6 | LOW |

RECOMMENDED PCB PATTERN



Line width be designed to match 50Ω characteristic impedance depending on PCB material and thickness.

Dimensions in mm

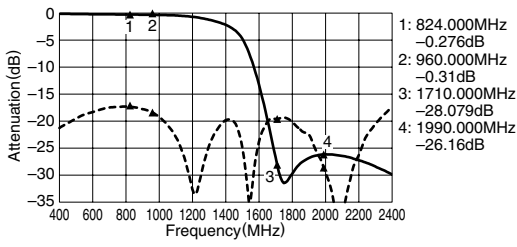
ELECTRICAL CHARACTERISTICS

| Item | Port | Frequency range | Minimum value | Typical value | Maximum value |
|-------------------|-----------|-----------------|---------------|---------------|---------------|
| Insertion loss | Lo-band | 824 to 960MHz | (dB) — | — | 0.5 |
| | Hi-band | 1710 to 1990MHz | (dB) — | — | 0.55 |
| Return loss | ANT | 824 to 960MHz | (dB) 10.0 | — | — |
| | ANT | 1710 to 1990MHz | (dB) 10.0 | — | — |
| Attenuation | Hi-band | 824 to 960MHz | (dB) 20.0 | — | — |
| | Lo-band | 1710 to 1990MHz | (dB) 20.0 | — | — |
| Temperature range | Operating | (°C) | −40 | — | +85°C |
| | Storage | (°C) | −40 | — | +85°C |

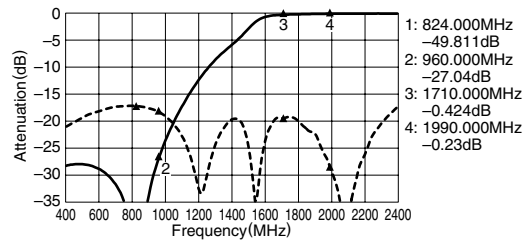
• Ta: +25°C

FREQUENCY CHARACTERISTICS

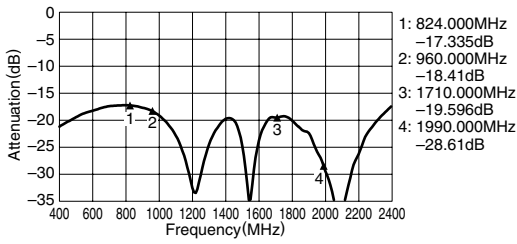
Lo-BAND PORT S21



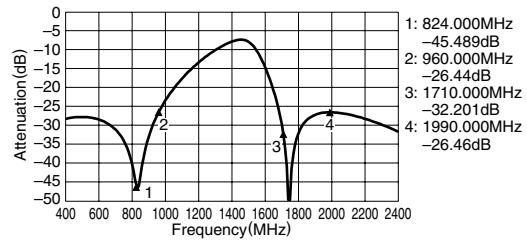
Hi-BAND PORT S31



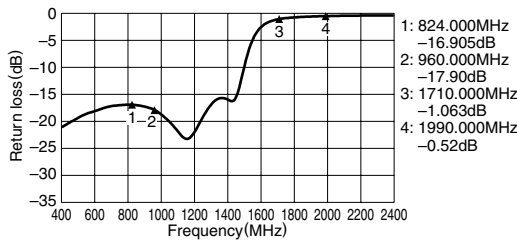
COMMON PORT RETURN LOSS S11



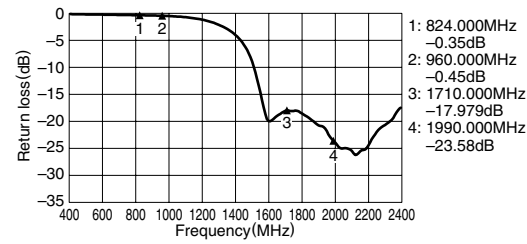
ISORATION S23



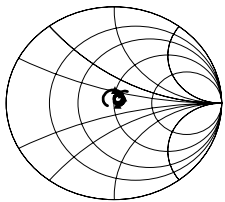
Lo-BAND PORT RETURN LOSS S22



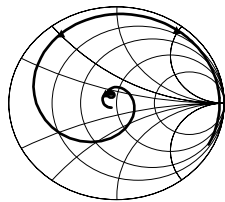
Hi-PORT RETURN LOSS S33



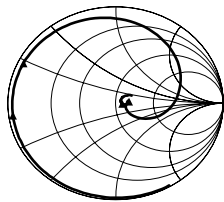
SMITH CHART



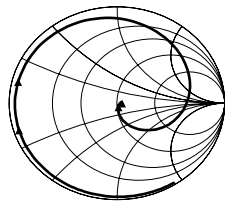
S11



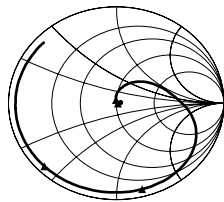
S22



S33



S21

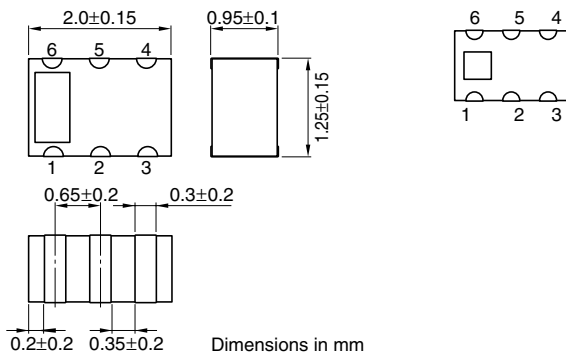


S31

Multilayer Diplexers, DPX Series

DPX201990DT-4012A1

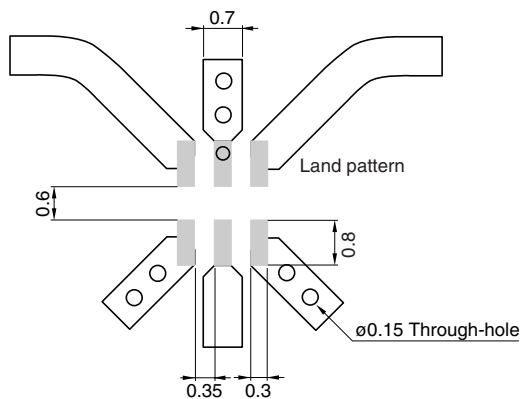
SHAPES AND DIMENSIONS/CIRCUIT



TERMINAL FUNCTIONS

| | |
|---|------|
| 1 | GND |
| 2 | ANT |
| 3 | GND |
| 4 | HIGH |
| 5 | GND |
| 6 | LOW |

RECOMMENDED PCB PATTERN



Line width be designed to match 50Ω characteristic impedance depending on PCB material and thickness.

Dimensions in mm

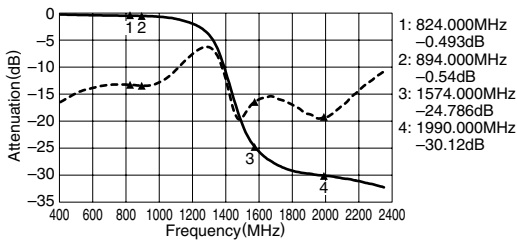
ELECTRICAL CHARACTERISTICS

| Item | Port | Frequency range | | Minimum value | Typical value | Maximum value |
|-------------------|---------|-------------------------------|------|---------------|---------------|---------------|
| Insertion loss | Lo-band | 824 to 894MHz | (dB) | — | — | 0.65 |
| | Hi-band | 1574 to 1576ÅA1850 to 1990MHz | (dB) | — | — | 0.7 |
| Return loss | ANT | 824 to 894MHz | (dB) | 10.0 | — | — |
| | ANT | 1574 to 1576ÅA1850 to 1990MHz | (dB) | 10.0 | — | — |
| Attenuation | Hi-band | 824 to 894MHz | (dB) | 20.0 | — | — |
| | Lo-band | 1574 to 1576ÅA1850 to 1990MHz | (dB) | 20.0 | — | — |
| Temperature range | | Operating | (°C) | -40 | — | +85°C |
| | | Storage | (°C) | -40 | — | +85°C |

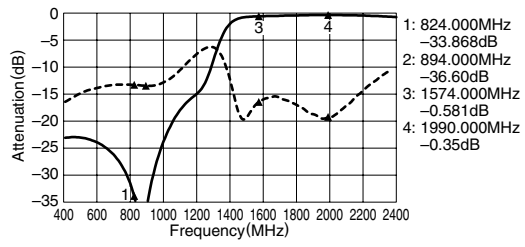
• Ta: +25°C

FREQUENCY CHARACTERISTICS

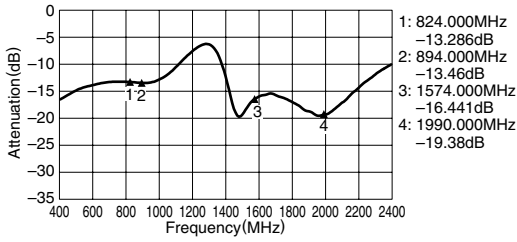
Lo-BAND PORT S21



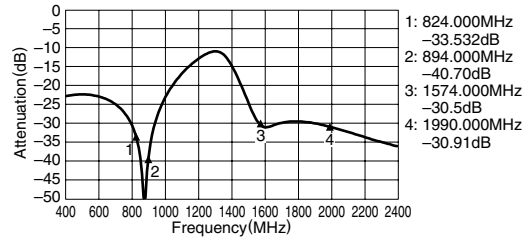
Hi-BAND PORT S31



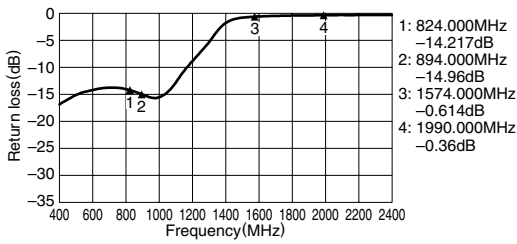
COMMON PORT RETURN LOSS S11



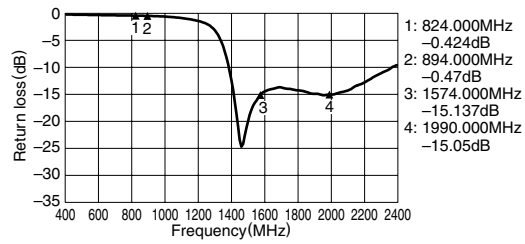
ISORATION S23



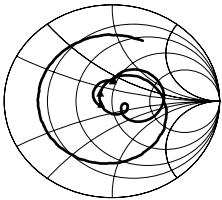
Lo-BAND PORT RETURN LOSS S22



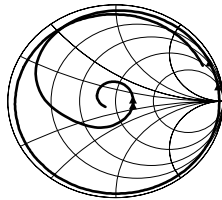
Hi-PORT RETURN LOSS S33



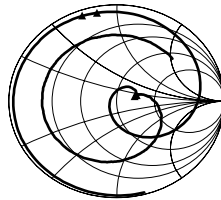
SMITH CHART



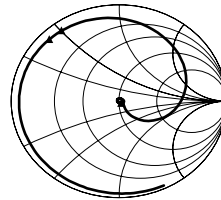
S11



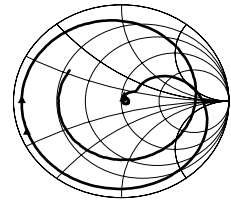
S22



S33



S21

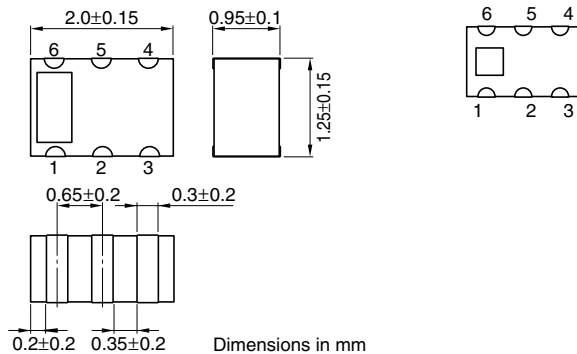


S31

Multilayer Diplexers, DPX Series

DPX202170DT-4021A1

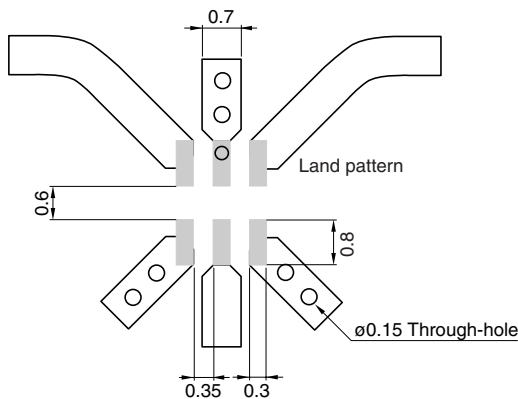
SHAPES AND DIMENSIONS/CIRCUIT



TERMINAL FUNCTIONS

| | |
|---|------|
| 1 | GND |
| 2 | ANT |
| 3 | GND |
| 4 | HIGH |
| 5 | GND |
| 6 | LOW |

RECOMMENDED PCB PATTERN



Line width be designed to match 50Ω characteristic impedance depending on PCB material and thickness.

Dimensions in mm

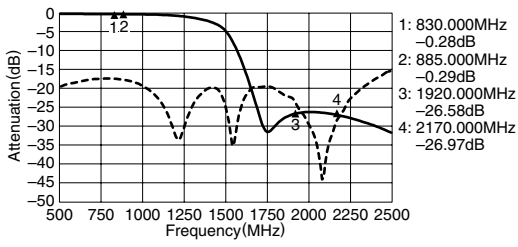
ELECTRICAL CHARACTERISTICS

| Item | Port | Frequency range | | Minimum value | Typical value | Maximum value |
|-------------------|---------|----------------------------------|------|---------------|---------------|---------------|
| Insertion loss | Lo-band | 830 to 885MHz | (dB) | — | — | 0.5 |
| | Hi-band | 1920 to 2170MHz | (dB) | — | — | 0.5 |
| Return loss | ANT | 830 to 885MHz 1920 to 2170MHz | (dB) | 10.0 | — | — |
| Attenuation | Hi-band | 830 to 885MHz | (dB) | 20.0 | — | — |
| | Lo-band | 1920 to 2170MHz | (dB) | 20.0 | — | — |
| Temperature range | | Operating | (°C) | -40 | — | +85°C |
| | | Storage | (°C) | -40 | — | +85°C |

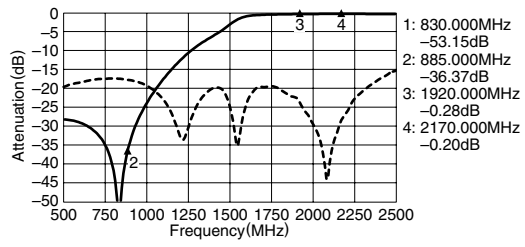
• Ta: +25°C

FREQUENCY CHARACTERISTICS

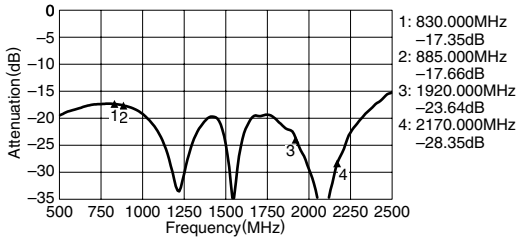
Lo-BAND PORT S21



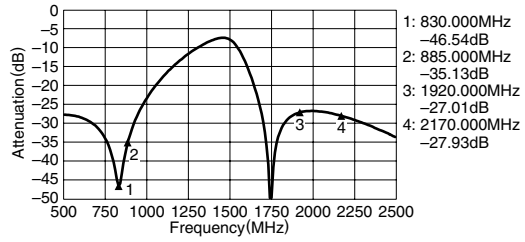
Hi-BAND PORT S31



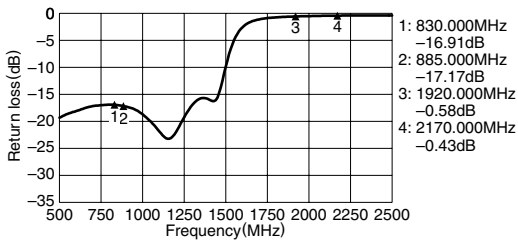
COMMON PORT RETURN LOSS S11



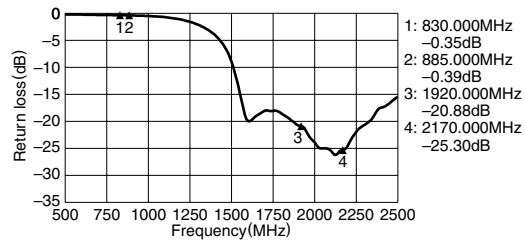
ISORATION S23



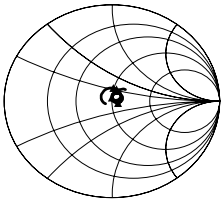
Lo-BAND PORT RETURN LOSS S22



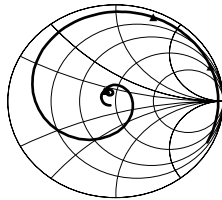
Hi-PORT RETURN LOSS S33



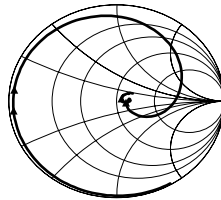
SMITH CHART



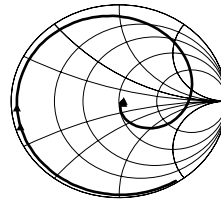
S11



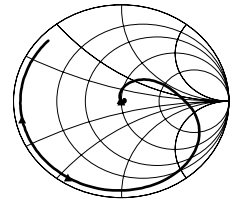
S22



S33



S21

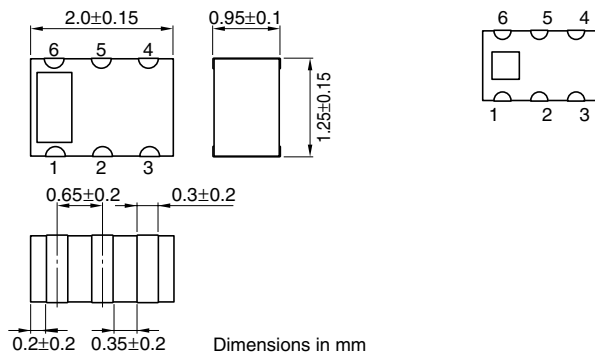


S31

Multilayer Diplexers, DPX Series

DPX205950DT-9008A1

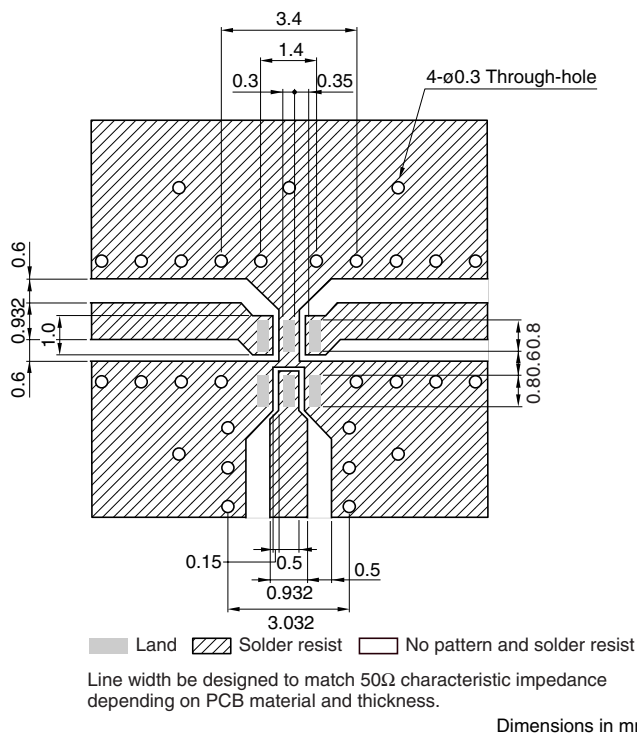
SHAPES AND DIMENSIONS/CIRCUIT



TERMINAL FUNCTIONS

| | |
|---|---------------|
| 1 | GND |
| 2 | ANT (COMMON) |
| 3 | GND |
| 4 | HIGH (5.0GHz) |
| 5 | GND |
| 6 | LOW (2.4GHz) |

RECOMMENDED PCB PATTERN



ELECTRICAL CHARACTERISTICS

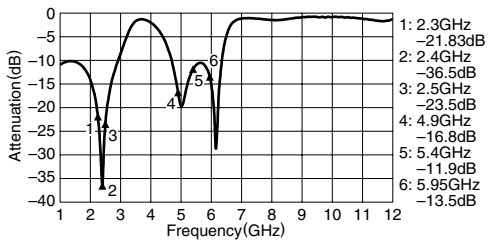
| Item | Port | Frequency range | Minimum value | Typical value | Maximum value | |
|-------------------|----------|-----------------------|----------------------|---------------|---------------|------|
| Insertion loss | ANT-LOW | [25±5°C] | 2300 to 2500MHz (dB) | — | 0.45 | 0.65 |
| | | [-40 to +85°C] | 2300 to 2500MHz (dB) | — | — | 0.8 |
| | ANT-HIGH | [25±5°C] | 4900 to 5950MHz (dB) | — | 0.90 | 1.4 |
| | | [-40 to +85°C] | 4900 to 5950MHz (dB) | — | — | 1.6 |
| Attenuation | ANT-LOW | 4600 to 5000MHz (dB) | 20 | 23 | — | |
| | | 6900 to 7500MHz (dB) | 20 | 26 | — | |
| | ANT-HIGH | 2300 to 2500MHz (dB) | 20 | 24 | — | |
| Return loss | ANT | 9800 to 11900MHz (dB) | 13 | 20 | — | |
| | | 2300 to 2500MHz (dB) | 10 | 20 | — | |
| | LOW | 4900 to 5950MHz (dB) | 9 | 11 | — | |
| | | 2400 to 2500MHz (dB) | 10 | 20 | — | |
| Temperature range | HIGH | 4900 to 5950MHz (dB) | 9 | 11 | — | |
| | | Operating (°C) | -40 | — | +85°C | |
| | | Storage (°C) | -40 | — | +85°C | |

• Ta: +25°C

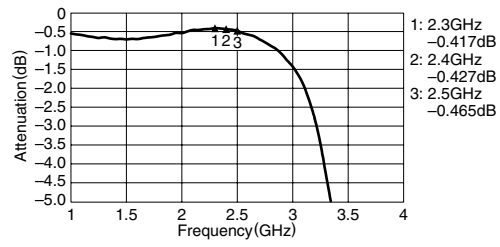
• All specifications are subject to change without notice.

FREQUENCY CHARACTERISTICS

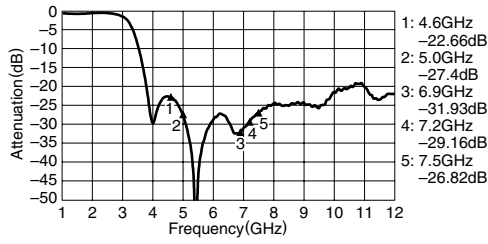
ANT-LOW S11



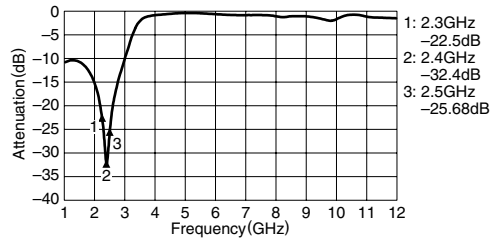
S21



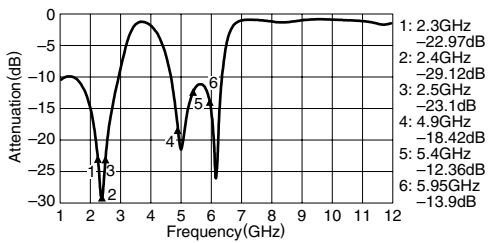
S21



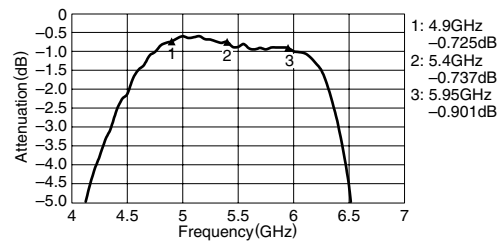
S22



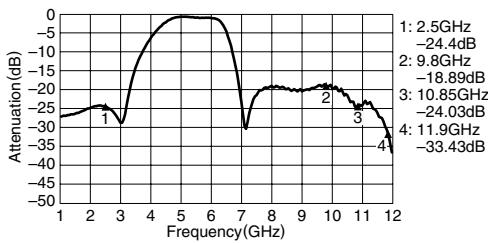
ANT-HIGH S11



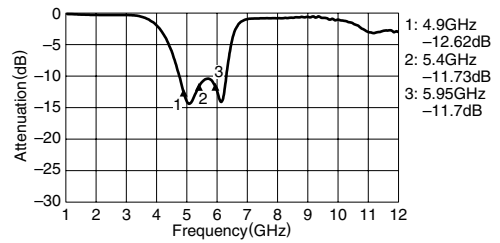
S21



S21



S22

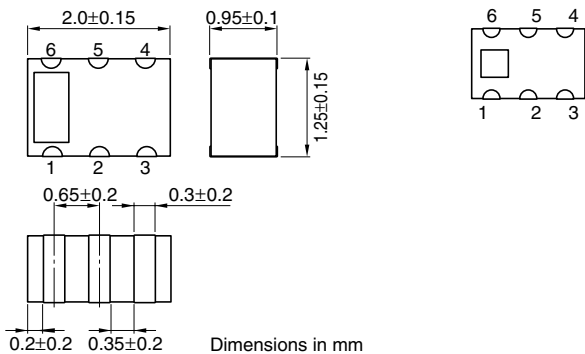


• All specifications are subject to change without notice.

Multilayer Diplexers, DPX Series

DPX205950DT-9108A1

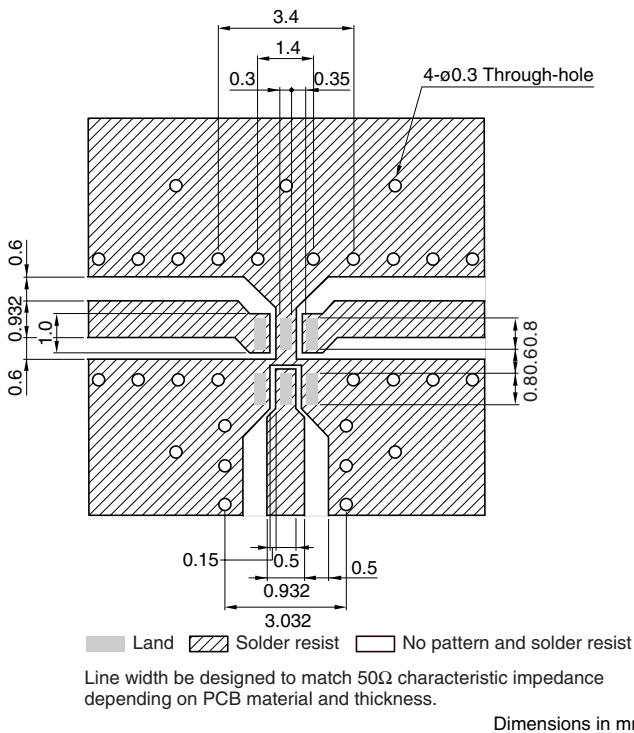
SHAPES AND DIMENSIONS/CIRCUIT



TERMINAL FUNCTIONS

| | |
|---|---------------|
| 1 | GND |
| 2 | ANT (COMMON) |
| 3 | GND |
| 4 | LOW (2.4GHz) |
| 5 | GND |
| 6 | HIGH (5.0GHz) |

RECOMMENDED PCB PATTERN



ELECTRICAL CHARACTERISTICS

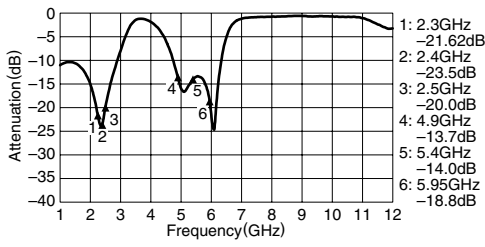
| Item | Port | Frequency range | Minimum value | Typical value | Maximum value |
|-------------------|-----------|-----------------------|----------------------|---------------|---------------|
| Insertion loss | ANT-LOW | [25±5°C] | 2300 to 2500MHz (dB) | — | 0.45 |
| | | [-40 to +85°C] | 2300 to 2500MHz (dB) | — | 0.8 |
| | ANT-HIGH | [25±5°C] | 4900 to 5950MHz (dB) | — | 0.90 |
| | | [-40 to +85°C] | 4900 to 5950MHz (dB) | — | 1.6 |
| Attenuation | ANT-LOW | 4600 to 5000MHz (dB) | 20 | 23 | — |
| | | 6900 to 7500MHz (dB) | 20 | 26 | — |
| | ANT-HIGH | 2300 to 2500MHz (dB) | 20 | 24 | — |
| | | 9800 to 11900MHz (dB) | 13 | 24 | — |
| Return loss | ANT | 2300 to 2500MHz (dB) | 10 | 20 | — |
| | ANT | 4900 to 5950MHz (dB) | 9 | 12 | — |
| | LOW | 2400 to 2500MHz (dB) | 10 | 20 | — |
| | HIGH | 4900 to 5950MHz (dB) | 9 | 11 | — |
| Temperature range | Operating | (°C) | -40 | — | +85°C |
| | Storage | (°C) | -40 | — | +85°C |

• Ta: +25°C

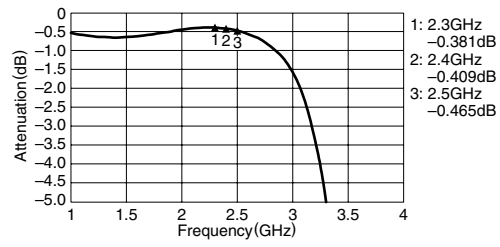
• All specifications are subject to change without notice.

FREQUENCY CHARACTERISTICS

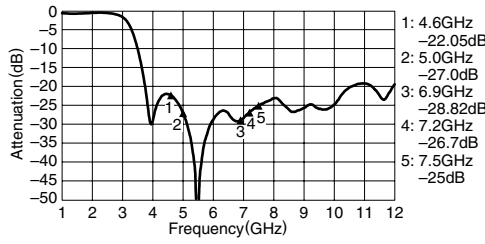
ANT-LOW S11



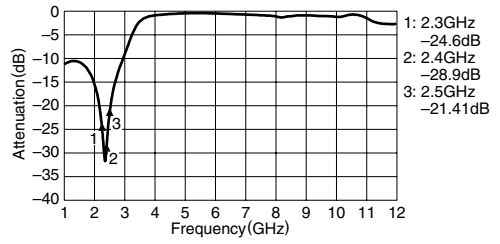
S21



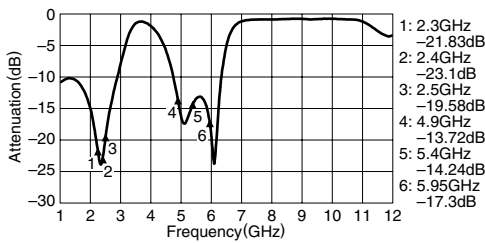
S21



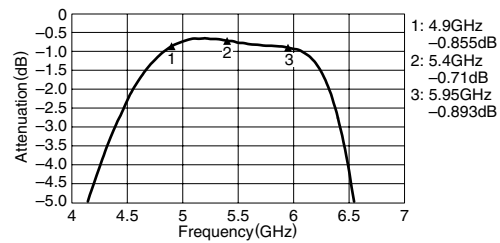
S22



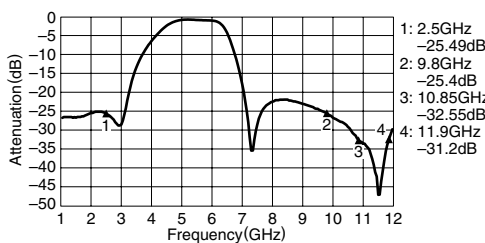
ANT-HIGH S11



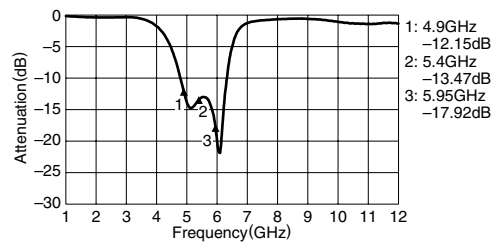
S21



S21



S22

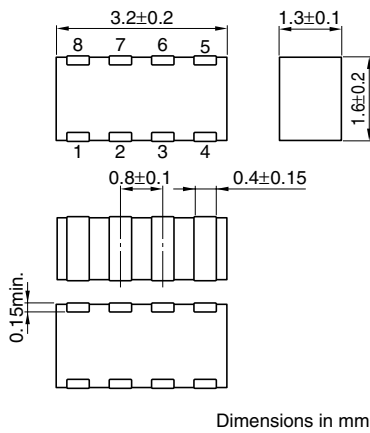


• All specifications are subject to change without notice.

Multilayer Diplexers, DPX Series

DPX315950DT-5005B2 For 2.4/5GHz W-LAN

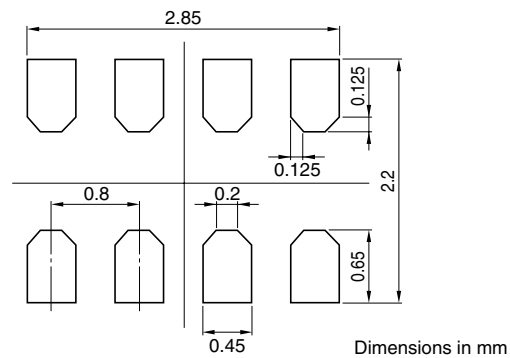
SHAPES AND DIMENSIONS



TERMINAL FUNCTIONS

| | |
|---|---------------|
| 1 | HIGH (5.0GHz) |
| 2 | GND |
| 3 | GND |
| 4 | LOW (2.4GHz) |
| 5 | GND |
| 6 | ANT (COMMON) |
| 7 | GND |
| 8 | GND |

RECOMMENDED PCB PATTERN



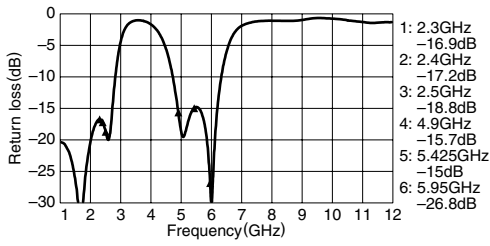
ELECTRICAL CHARACTERISTICS

| Item | Port | | Frequency range | | Minimum value | Typical value | Maximum value |
|-------------------|-----------|-----------------|-------------------|------|---------------|---------------|---------------|
| Insertion loss | ANT-LOW | [25±5°C] | 2300 to 2500MHz | (dB) | — | 0.55 | 0.7 |
| | | [-40 to +85°C] | 2300 to 2500MHz | (dB) | — | — | 0.85 |
| | ANT-HIGH | [25±5°C] | 4900 to 5950MHz | (dB) | — | 0.8 | 1.0 |
| | | [-40 to +85°C] | 4900 to 5950MHz | (dB) | — | — | 1.2 |
| Attenuation | ANT-LOW | | 3950MHz | (dB) | 18 | 24 | — |
| | | | 4600 to 5000MHz | (dB) | 25 | 29 | — |
| | | | 5000 to 5950MHz | (dB) | 25 | 29 | — |
| | | | 6500 to 7500MHz | (dB) | 18 | 25 | — |
| | ANT-HIGH | | 1300 to 1800MHz | (dB) | 35 | 40 | — |
| | | | 1800 to 2000MHz | (dB) | 37 | 42 | — |
| | | | 2100 to 2300MHz | (dB) | 36 | 41 | — |
| | | | 2300 to 2500MHz | (dB) | 30 | 38 | — |
| | | | 2500 to 3500MHz | (dB) | 11 | 13.5 | — |
| | | | 3500 to 3950MHz | (dB) | 4 | 7 | — |
| Return loss | ANT | | 9800 to 10700MHz | (dB) | 15 | 24 | — |
| | | | 10700 to 11700MHz | (dB) | 10 | 22 | — |
| | LOW | | 11700 to 11900MHz | (dB) | 8 | 20 | — |
| | | | 2300 to 2500MHz | (dB) | 10 | 15 | — |
| HIGH | | 4900 to 5950MHz | (dB) | 9 | 13 | — | |
| | | 4900 to 5950MHz | (dB) | 9 | 13 | — | |
| Temperature range | Operating | (°C) | — | — | — | +85 | |
| | Storage | (°C) | — | — | — | +85 | |

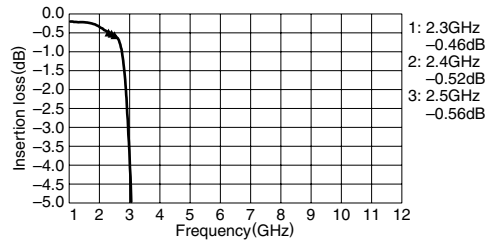
FREQUENCY CHARACTERISTICS

ANT-LOW

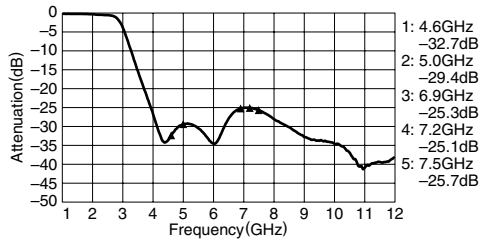
S11



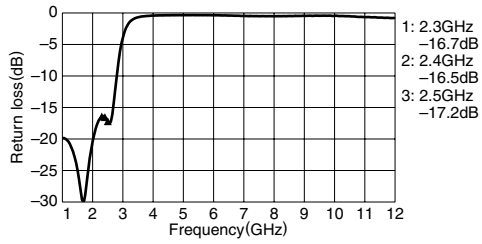
S21



S21

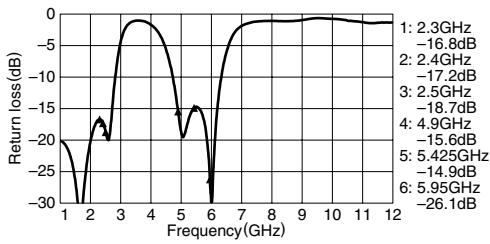


S22

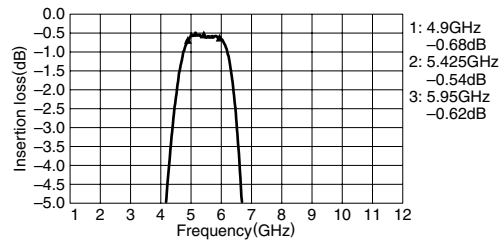


ANT-HIGH

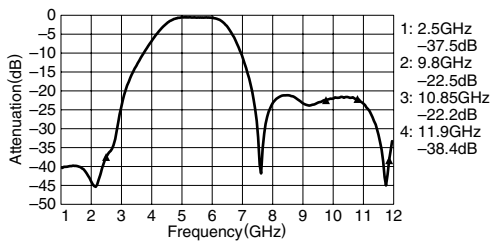
S11



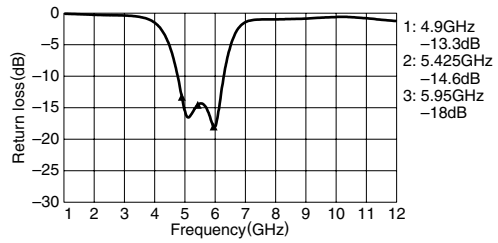
S21



S21



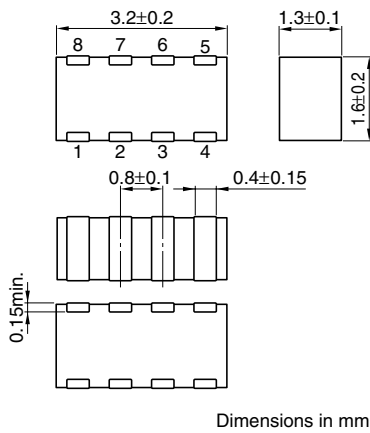
S22



Multilayer Diplexers, DPX Series

DPX315950DT-5006C1 For 2.4/5GHz W-LAN

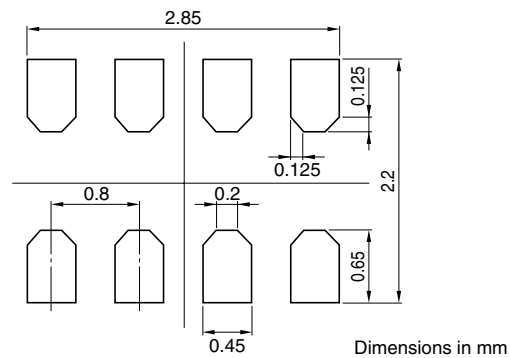
SHAPES AND DIMENSIONS



TERMINAL FUNCTIONS

| | |
|---|---------------|
| 1 | LOW (2.4GHz) |
| 2 | GND |
| 3 | GND |
| 4 | HIGH (5.0GHz) |
| 5 | GND |
| 6 | GND |
| 7 | ANT (COMMON) |
| 8 | GND |

RECOMMENDED PCB PATTERN



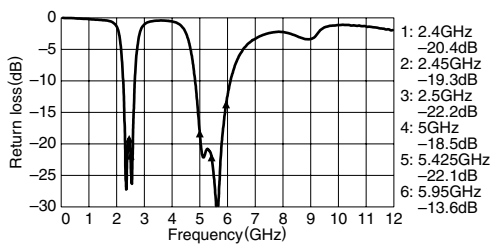
ELECTRICAL CHARACTERISTICS

| Item | Port | | Frequency range | | Minimum value | Typical value | Maximum value |
|-------------------|----------|----------|------------------|------|---------------|---------------|---------------|
| Insertion loss | ANT-LOW | [25±5°C] | 2400 to 2500MHz | (dB) | — | 1.0 | 1.5 |
| | ANT-HIGH | [25±5°C] | 5000 to 5950MHz | (dB) | — | 0.8 | 1.2 |
| Attenuation | ANT-LOW | | DC to 1500MHz | (dB) | 25 | 30 | — |
| | | | 4800 to 5950MHz | (dB) | 21 | 25 | — |
| | | | 6500 to 7500MHz | (dB) | 10 | 16 | — |
| | | | DC to 1500MHz | (dB) | 40 | 48 | — |
| | ANT-HIGH | | 1500 to 2000MHz | (dB) | 30 | 48 | — |
| | | | 2500 to 3850MHz | (dB) | 21 | 26 | — |
| | | | 3850 to 3883MHz | (dB) | 19.5 | 25 | — |
| | | | 6500MHz | (dB) | — | 1.2 | — |
| Return loss | ANT-LOW | | 7200 to 7700MHz | (dB) | 3 | 4.8 | — |
| | | | 9000 to 10000MHz | (dB) | 13 | 16 | — |
| | | | 2400 to 2500MHz | (dB) | 10 | — | — |
| Temperature range | ANT-HIGH | | 5000 to 5950MHz | (dB) | 9 | — | — |
| | | | Operating | (°C) | -40 | — | +85 |
| | | | Storage | (°C) | -40 | — | +85 |

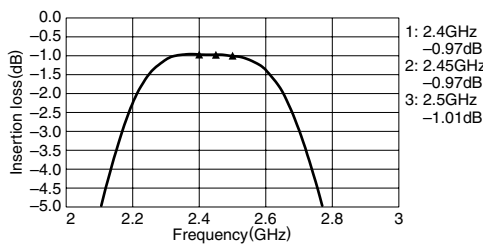
FREQUENCY CHARACTERISTICS

ANT-LOW

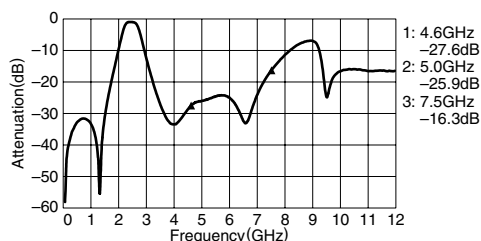
S11



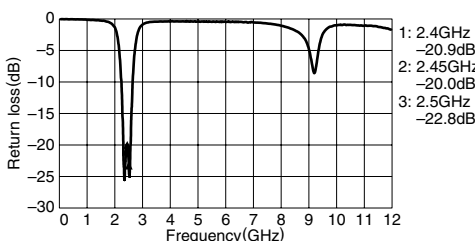
S21



S21

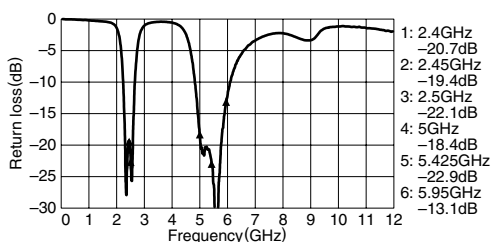


S22

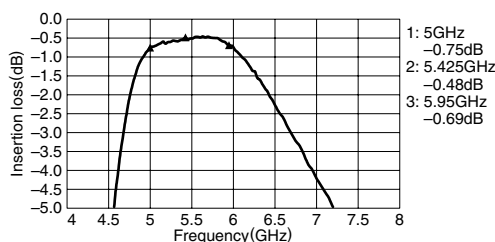


ANT-HIGH

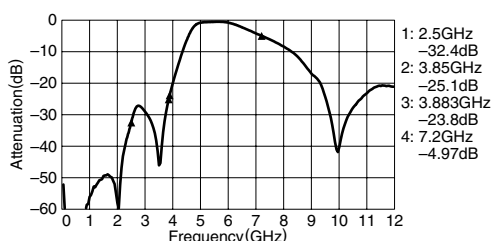
S11



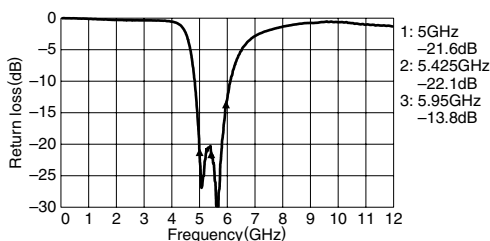
S21



S21



S22



• All specifications are subject to change without notice.