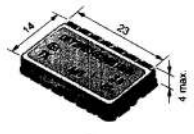
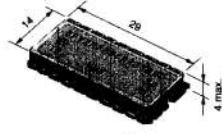


## MICROWAVE FILTERS GIGAFIL

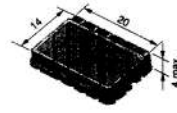
### ■ Duplexer DP-Series 800/900MHz



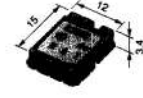
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③



④

(in mm)

| System | Part Number      | Center Frequency (MHz) |                         | Bandwidth (MHz)      | Insertion Loss in Bandwidth (dB) max. | Attenuation (dB) min. (MHz) | Dimensions |
|--------|------------------|------------------------|-------------------------|----------------------|---------------------------------------|-----------------------------|------------|
|        |                  | Tx                     | Rx                      |                      |                                       |                             |            |
| E-AMPS | DFY2R836CR881BHA | Tx                     | 836.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5 | 2.8                                   | 43 (F <sub>R</sub> ±12.5)   | ①          |
|        |                  | Rx                     | 881.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5 | 3.7                                   | 50 (F <sub>T</sub> ±12.5)   |            |
|        | DFY2R836CR881BHD | Tx                     | 836.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5 | 2.4                                   | 36 (F <sub>R</sub> ±12.5)   | ①          |
|        |                  | Rx                     | 881.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5 | 4.0                                   | 45 (F <sub>T</sub> ±12.5)   |            |
| N-TACS | DFY2R856CR911BHG | Tx                     | 911.5 (F <sub>T</sub> ) | F <sub>T</sub> ±13.5 | 2.1                                   | 49 (F <sub>R</sub> ±13.5)   | ①          |
|        |                  | Rx                     | 856.5 (F <sub>R</sub> ) | F <sub>R</sub> ±13.5 | 3.8                                   | 52 (F <sub>T</sub> ±13.5)   |            |
| NMT900 | DFY2R902CR947BHA | Tx                     | 902.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5 | 2.4                                   | 36 (F <sub>R</sub> ±12.5)   | ①          |
|        |                  | Rx                     | 947.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5 | 3.7                                   | 45 (F <sub>T</sub> ±12.5)   |            |
| LMR    | DFY2R815CR860BHA | Tx                     | 815.0 (F <sub>T</sub> ) | F <sub>T</sub> ±10.0 | 2.0                                   | 40 (F <sub>R</sub> ±10.0)   | ①          |
|        |                  | Rx                     | 860.0 (F <sub>R</sub> ) | F <sub>R</sub> ±10.0 | 4.0                                   | 57 (F <sub>T</sub> ±10.0)   |            |
| E-TACS | DFY2R888CR933BHD | Tx                     | 888.5 (F <sub>T</sub> ) | F <sub>T</sub> ±16.5 | 3.4                                   | 36 (F <sub>R</sub> ±16.5)   | ②          |
|        |                  | Rx                     | 933.5 (F <sub>R</sub> ) | F <sub>R</sub> ±16.5 | 5.1                                   | 49 (F <sub>T</sub> ±16.5)   |            |
|        | DFY2R888CR933BHE | Tx                     | 888.5 (F <sub>T</sub> ) | F <sub>T</sub> ±16.5 | 3.5                                   | 36 (F <sub>R</sub> ±16.5)   | ②          |
|        |                  | Rx                     | 933.5 (F <sub>R</sub> ) | F <sub>R</sub> ±16.5 | 4.6                                   | 44 (F <sub>T</sub> ±16.5)   |            |
| GSM    | DFY2R902CR947BHG | Tx                     | 902.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5 | 1.8                                   | 30 (F <sub>R</sub> ±12.5)   | ③          |
|        |                  | Rx                     | 947.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5 | 3.2                                   | 27 (F <sub>T</sub> ±12.5)   |            |
| E-GSM  | DFY2R897CR942BHD | Tx                     | 897.5 (F <sub>T</sub> ) | F <sub>T</sub> ±17.5 | 2.5                                   | 18 (F <sub>R</sub> ±17.5)   | ③          |
|        |                  | Rx                     | 942.5 (F <sub>R</sub> ) | F <sub>R</sub> ±17.5 | 4.0                                   | 20 (F <sub>T</sub> ±17.5)   |            |
| PDC800 | DFY2R820CR950BHA | Tx                     | 950.0 (F <sub>T</sub> ) | F <sub>T</sub> ±10.0 | 0.5                                   | 20 (F <sub>R</sub> ±10.0)   | ④          |
|        |                  | Rx                     | 820.0 (F <sub>R</sub> ) | F <sub>R</sub> ±10.0 | 1.8                                   | 30 (F <sub>T</sub> ±10.0)   |            |

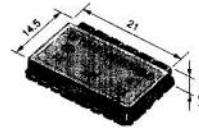
### ■ Duplexer DP-Series 1500-2000MHz



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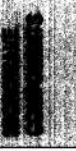


③

(in mm)

| System  | Part Number      | Center Frequency (MHz) |                          | Bandwidth (MHz)      | Insertion Loss in Bandwidth (dB) max. | Attenuation (dB) min. (MHz) | Dimensions |
|---------|------------------|------------------------|--------------------------|----------------------|---------------------------------------|-----------------------------|------------|
|         |                  | Tx                     | Rx                       |                      |                                       |                             |            |
| PDC1.5  | DFY21R44C1R48BHB | Tx                     | 1441.0 (F <sub>T</sub> ) | F <sub>T</sub> ±12.0 | 1.6                                   | 8 (F <sub>R</sub> ±12.0)    | ①          |
|         |                  | Rx                     | 1489.0 (F <sub>R</sub> ) | F <sub>R</sub> ±12.0 | 2.8                                   | 11 (F <sub>T</sub> ±12.0)   |            |
|         | DFY21R44C1R48BHE | Tx                     | 1441.0 (F <sub>T</sub> ) | F <sub>T</sub> ±12.0 | 1.6                                   | 8 (F <sub>R</sub> ±12.0)    | ②          |
|         |                  | Rx                     | 1489.0 (F <sub>R</sub> ) | F <sub>R</sub> ±12.0 | 3.1                                   | 20 (F <sub>T</sub> ±12.0)   |            |
| DCS1800 | DFY21R74C1R84BHD | Tx                     | 1747.5 (F <sub>T</sub> ) | F <sub>T</sub> ±37.5 | 2.3                                   | 15 (F <sub>R</sub> ±37.5)   | ③          |
|         |                  | Rx                     | 1842.5 (F <sub>R</sub> ) | F <sub>R</sub> ±37.5 | 3.7                                   | 20 (F <sub>T</sub> ±37.5)   |            |
| PCS     | DFY21R88C1R96BHD | Tx                     | 1880.0 (F <sub>T</sub> ) | F <sub>T</sub> ±30.0 | 2.7                                   | 15 (F <sub>R</sub> ±30.0)   | ③          |
|         |                  | Rx                     | 1960.0 (F <sub>R</sub> ) | F <sub>R</sub> ±30.0 | 3.7                                   | 20 (F <sub>T</sub> ±30.0)   |            |

EMI SUPPRESSION FILTERS (EMFIL®)



FILTERS

VIDEO EQUIPMENT

FUNCTIONAL MODULES HYBRID ICs

POWER SUPPLIES

SENSORS

CAPACITORS

THERMISTORS /RESISTORS

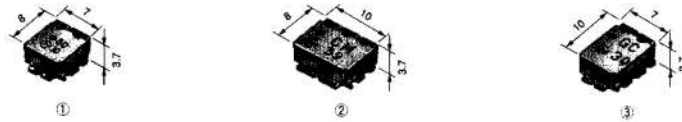
COILS/DELAY LINES /FERRITE CORES

RESONATORS

PIEZO PRODUCTS

## MICROWAVE FILTERS GIGAFIL

### Band-Pass Filter DP-Series 1500-2000MHz



(in mm)

| System  | Part Number     | Center Frequency Fo (MHz) | Bandwidth (MHz) | Insertion Loss in Bandwidth (dB) max. | Attenuation (dB) min. (MHz) | Dimensions |
|---------|-----------------|---------------------------|-----------------|---------------------------------------|-----------------------------|------------|
| DECT    | DFC21R89P020BHD | 1890.0                    | $F_o \pm 10.0$  | 1.8                                   | 45 (1670-1690)              | ①          |
| PHS     | DFC21R90P025BHD | 1907.5                    | $F_o \pm 12.5$  | 0.7                                   | 24 (1655-1680)              | ①          |
| DCS1800 | DFC31R74P075BHD | 1747.5                    | $F_o \pm 37.5$  | 2.0                                   | 8 ( $F_o \pm 80$ )          | ②          |
|         | DFC31R84P075BHD | 1842.5                    | $F_o \pm 37.5$  | 2.0                                   | 8 ( $F_o \pm 80$ )          |            |
| PCS     | DFC31R88P060BHD | 1880.0                    | $F_o \pm 30.0$  | 2.2                                   | 15 ( $F_o \pm 100$ )        | ②          |
|         | DFC31R96P060BHD | 1960.0                    | $F_o \pm 30.0$  | 2.2                                   | 15 ( $F_o \pm 100$ )        |            |
| GPS     | DFC21R57P002BHD | 1574.42                   | $F_o \pm 1.0$   | 3.0                                   | 22 ( $F_o - 50$ )           | ③          |
| ISM2.4  | DFC22R44P084BHD | 2442.0                    | $F_o \pm 42.0$  | 1.2                                   | 15 ( $F_o \pm 250$ )        | ③          |

### Band-Pass Filter MB-Series (SMD Type) 800/900MHz



(in mm)

| System     | Part Number     | Center Frequency Fo (MHz) | Bandwidth (MHz) | Insertion Loss in Bandwidth (dB) max. | Attenuation (dB) min. (MHz)                | Dimensions |
|------------|-----------------|---------------------------|-----------------|---------------------------------------|--|------------|
| E-AMPS     | DFC2R836P025HHD | 836.5                     | $F_o \pm 12.5$  | 2.6                                   | 6.5 ( $F_o + 32.5$ )                       | ①          |
|            | DFC2R881P025HHD | 881.5                     | $F_o \pm 12.5$  | 2.6                                   | 9 ( $F_o - 32.5$ )                         |            |
| GSM/NMT900 | DFC2R902P025HHD | 902.5                     | $F_o \pm 12.5$  | 2.6                                   | 6.5 ( $F_o + 32.5$ )                       | ①          |
|            | DFC2R947P025HHD | 947.5                     | $F_o \pm 12.5$  | 2.6                                   | 8 ( $F_o - 32.5$ )                         |            |
| E-AMPS     | DFC3R836P025HHD | 836.5                     | $F_o \pm 12.5$  | 3.0                                   | 12 ( $F_o + 32.5$ )                        | ②          |
|            | DFC3R881P025HHD | 881.5                     | $F_o \pm 12.5$  | 3.0                                   | 15 ( $F_o - 32.5$ )                        |            |
| GSM/NMT900 | DFC3R902P025HHD | 902.5                     | $F_o \pm 12.5$  | 3.0                                   | 12 ( $F_o + 32.5$ )                        | ②          |
|            | DFC3R947P025HHD | 947.5                     | $F_o \pm 12.5$  | 3.0                                   | 15 ( $F_o - 32.5$ )                        |            |
| CTI        | DFC2R914P001HHA | 914.5                     | $F_o \pm 0.5$   | 3.0                                   | 24 ( $F_o \pm 44.0$ )                      | ③          |
|            | DFC2R959P001HHA | 959.5                     | $F_o \pm 0.5$   | 3.0                                   | 24 ( $F_o \pm 44.0$ )                      |            |
| CTI+       | DFC2R886P002HHA | 886.0                     | $F_o \pm 1.0$   | 3.0                                   | 24 ( $F_o \pm 44.0$ )                      | ③          |
|            | DFC2R931P002HHA | 931.0                     | $F_o \pm 1.0$   | 3.0                                   | 24 ( $F_o \pm 44.0$ )                      |            |
| CTI        | DFC3R914P001HHA | 914.5                     | $F_o \pm 0.5$   | 5.3                                   | 45 ( $F_o - 44.0$ )<br>55 ( $F_o + 44.0$ ) | ④          |
|            | DFC3R959P001HHA | 959.5                     | $F_o \pm 0.5$   | 5.3                                   | 45 ( $F_o - 44.0$ )<br>55 ( $F_o + 44.0$ ) |            |
| CTI+       | DFC3R886P002HHA | 886.0                     | $F_o \pm 1.0$   | 5.3                                   | 45 ( $F_o - 44.0$ )<br>55 ( $F_o + 44.0$ ) | ④          |
|            | DFC3R931P002HHA | 931.0                     | $F_o \pm 1.0$   | 5.3                                   | 45 ( $F_o - 44.0$ )<br>55 ( $F_o + 44.0$ ) |            |

### Band-Pass Filter MB-Series (SMD Type) 1500-2000MHz **NEW**



(in mm)

| System | Part Number     | Center Frequency Fo (MHz) | Bandwidth (MHz) | Insertion Loss in Bandwidth (dB) max. | Attenuation (dB) min. (MHz) | Dimensions |
|--------|-----------------|---------------------------|-----------------|---------------------------------------|-----------------------------|------------|
| PDC1.5 | DFC21R48P024HHA | 1489.0                    | $F_o \pm 12.0$  | 1.3                                   | 10 (1607-1631)              | ①          |
| GPS    | DFC21R57P002HHA | 1575.42                   | $F_o \pm 1.0$   | 3.15                                  | 18 ( $F_o \pm 50$ )         | ②          |
| PHS    | DFC21R90P025HHC | 1907.5                    | $F_o \pm 12.5$  | 1.0 (-15 - +55°C)                     | 20 (1655-1680)              | ③          |
|        | DFC21R90P025HHD | 1907.5                    | $F_o \pm 12.5$  | 1.6 (-15 - +55°C)                     | 35 (1655-1680)              |            |
| PHS    | DFC21R90P025HHE | 1907.5                    | $F_o \pm 12.5$  | 1.9 (-15 - +55°C)                     | 45 (1655-1680)              | ④          |
|        | DFC21R89P020HHE | 1890.0                    | $F_o \pm 10.0$  | 2.0                                   | 45 (1660-1680)              |            |

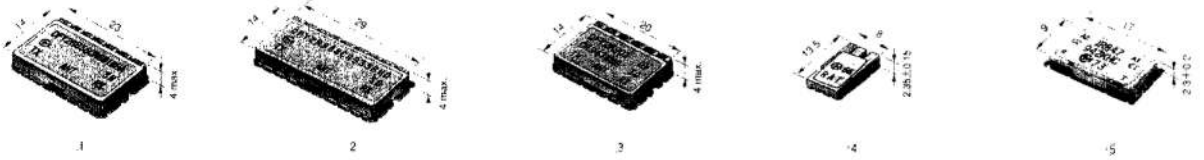


# MICROWAVE FILTER



## Microwave Filter (GIGAFIL<sup>®</sup>)

### ■ Duplexer DP-Series 800/900MHz



(in mm)

| System             | Part Number       | Center Frequency (MHz)  | Bandwidth (MHz)         | Insertion Loss in Bandwidth (dB) max. | Attenuation (dB) min. (MHz)              | Dimensions                                   |   |
|--------------------|-------------------|-------------------------|-------------------------|---------------------------------------|--|--|---|
| E-AMPS             | DFY2R836CR881BHA  | Tx                      | 836.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5                  | 2.8                                      | 43 (F <sub>R</sub> ±12.5)                    | 1 |
|                    |                   | Rx                      | 881.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5                  | 3.7                                      | 50 (F <sub>T</sub> ±12.5)                    |   |
|                    | DFY2R836CR881BHD  | Tx                      | 836.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5                  | 2.4                                      | 36 (F <sub>R</sub> ±12.5)                    | 2 |
|                    |                   | Rx                      | 881.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5                  | 4.0                                      | 45 (F <sub>T</sub> ±12.5)                    |   |
| LMR                | DFY2R815CR860BHA  | Tx                      | 815.0 (F <sub>T</sub> ) | F <sub>T</sub> ±10.0                  | 2.0                                      | 40 (F <sub>R</sub> ±10.0)                    | 1 |
| E-TACS             | DFY2R888CR933BHD  | Tx                      | 888.5 (F <sub>T</sub> ) | F <sub>T</sub> ±16.5                  | 3.4                                      | 36 (F <sub>R</sub> ±16.5)                    | 2 |
|                    |                   | Rx                      | 933.5 (F <sub>R</sub> ) | F <sub>R</sub> ±16.5                  | 5.1                                      | 49 (F <sub>T</sub> ±16.5)                    |   |
| GSM                | DFY2R902CR947BHGD | Tx                      | 902.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5                  | 1.9                                      | 10 (925-935)<br>20 (F <sub>R</sub> ±12.5)    | 3 |
|                    |                   | Rx                      | 947.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5                  | 3.0                                      | 25 (F <sub>T</sub> ±12.5)                    |   |
|                    | DFY2R902CR947BHG  | Tx                      | 902.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5                  | 1.8                                      | 30 (F <sub>R</sub> ±12.5)                    | 3 |
|                    |                   | Rx                      | 947.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5                  | 3.2                                      | 27 (F <sub>T</sub> ±12.5)                    |   |
|                    | DFY2R902CR947BHGF | Tx                      | 902.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5                  | 1.2                                      | 15 (F <sub>R</sub> ±12.5)                    | 3 |
|                    |                   | Rx                      | 947.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5                  | 3.2                                      | 28 (F <sub>T</sub> ±12.5)                    |   |
| DFY2R902CR947BHGJ  | Tx                | 902.5 (F <sub>T</sub> ) | F <sub>T</sub> ±12.5    | 1.6                                   | 8 (925-935)<br>15 (F <sub>R</sub> ±12.5) | 3  |   |
|                    | Rx                | 947.5 (F <sub>R</sub> ) | F <sub>R</sub> ±12.5    | 3.2                                   | 27 (800-915)                             |  |   |
| E-GSM              | DFY2R897CR942BHB  | Tx                      | 897.5 (F <sub>T</sub> ) | F <sub>T</sub> ±17.5                  | 2.0                                      | 8 (925-935)<br>15 (935-960)                  | 3 |
|                    |                   | Rx                      | 942.5 (F <sub>R</sub> ) | F <sub>R</sub> ±17.5                  | 4.3                                      | 25 (F <sub>T</sub> ±17.5)                    |   |
| PDC800             | DFY2R820CR950KHB  | Tx                      | 950.0 (F <sub>T</sub> ) | F <sub>T</sub> ±10.0                  | 0.5                                      | 20 (F <sub>R</sub> ±10.0)                    | 4 |
|                    |                   | Rx                      | 820.0 (F <sub>R</sub> ) | F <sub>R</sub> ±10.0                  | 1.8                                      | 27 (F <sub>T</sub> ±10.0)                    |   |
| PDC800 (Dual-Band) | DFYJR847CR942KHC  | Tx                      | 942.5 (F <sub>T</sub> ) | F <sub>T</sub> ±17.5                  | 0.8                                      | 30 (2F <sub>T</sub> ), 30 (3F <sub>T</sub> ) | 5 |
|                    |                   | Rx1                     | 847.5 (F <sub>R</sub> ) | F <sub>R</sub> ±37.5                  | 2.2                                      | 32 (550-570)                                 |   |
|                    |                   | Rx2                     | 847.5 (F <sub>R</sub> ) | F <sub>R</sub> ±37.5                  | 2.2                                      | 32 (600-625)                                 |   |

### ■ Duplexer DP-Series 1500-2000MHz



(in mm)

| System  | Part Number      | Center Frequency (MHz) | Bandwidth (MHz)          | Insertion Loss in Bandwidth (dB) max. | Attenuation (dB) min. (MHz) | Dimensions                                   |   |
|---------|------------------|------------------------|--------------------------|---------------------------------------|-----------------------------|--|---|
| PDC1.5  | DFYJ1R44C1R48LHA | Tx                     | 1441.0 (F <sub>T</sub> ) | F <sub>T</sub> ±12.0                  | 0.8                         | 28 (2F <sub>T</sub> ), 30 (3F <sub>T</sub> ) | 1 |
|         |                  | Rx1                    | 1489.0 (F <sub>R</sub> ) | F <sub>R</sub> ±12.0                  | 2.5                         | 10 (1607-1631)                               |   |
|         |                  | Rx2                    | 1489.0 (F <sub>R</sub> ) | F <sub>R</sub> ±12.0                  | 2.0                         | 35 (1737-1761)                               |   |
| DCS1800 | DFY21R74C1R84BHE | Tx                     | 1747.5 (F <sub>T</sub> ) | F <sub>T</sub> ±37.5                  | 2.3                         | 20 (F <sub>R</sub> ±37.5)                    | 2 |
|         |                  | Rx                     | 1842.5 (F <sub>R</sub> ) | F <sub>R</sub> ±37.5                  | 2.7                         | 20 (F <sub>T</sub> ±37.5)                    |   |
|         | DFY21R74C1R84BHF | Tx                     | 1747.5 (F <sub>T</sub> ) | F <sub>T</sub> ±37.5                  | 2.0                         | 15 (F <sub>R</sub> ±37.5)                    | 2 |
| PCS     | DFY21R88C1R96BHG | Tx                     | 1880.0 (F <sub>T</sub> ) | F <sub>T</sub> ±30.0                  | 2.3                         | 20 (F <sub>R</sub> ±30.0)                    | 2 |
|         |                  | Rx                     | 1960.0 (F <sub>R</sub> ) | F <sub>R</sub> ±30.0                  | 3.2                         | 25 (F <sub>T</sub> ±30.0)                    |   |
|         | DFY21R88C1R96BHF | Tx                     | 1880.0 (F <sub>T</sub> ) | F <sub>T</sub> ±30.0                  | 2.0                         | 17 (F <sub>R</sub> ±30.0)                    | 2 |
|         |                  | Rx                     | 1960.0 (F <sub>R</sub> ) | F <sub>R</sub> ±30.0                  | 3.0                         | 20 (F <sub>T</sub> ±30.0)                    |   |