



MSL1

\* Pb Free Part

|               |                                 |                                         |                |
|---------------|---------------------------------|-----------------------------------------|----------------|
| Customer Name | Standard specification          | TAIYO YUDEN Mobile Technology Co., Ltd. |                |
| System        | GSM1800/GSM1900 Rx (50/150ohms) | Date                                    | March 31, 2010 |
| Part Number   | FAR-G6QC-1G9600-N2FA            | Version 1.0aa                           | -              |

Table 1. Electrical specifications(Filter 1)

| Pass Band (1805-1850MHz)                         |                    |               |           |      |        |        |
|--------------------------------------------------|--------------------|---------------|-----------|------|--------|--------|
| Item                                             | Condition<br>(MHz) | Specification |           |      | Unit   | Remark |
|                                                  |                    | Min.          | Typ.      | Max. |        |        |
| Insertion Loss                                   | 1805-1880          | -             | 1.9       | 2.4  | dB(*1) |        |
| Ripple                                           | 1805-1880          | -             | 0.6       | 1.2  | dB     |        |
| Input VSWR                                       | 1805-1880          | -             | 1.9       | 2.3  | -      |        |
| Output VSWR                                      | 1805-1880          | -             | 1.8       | 2.3  | -      |        |
| Absolute attenuation                             | DC-1300            | 35            | 42        | -    | dB     |        |
|                                                  | 1300-1705          | 25            | 33        | -    | dB     |        |
|                                                  | 1705-1785          | 13            | 17        | -    | dB     |        |
|                                                  | 1920-1980          | 19            | 22        | -    | dB     |        |
|                                                  | 1980-3000          | 20            | 27        | -    |        |        |
|                                                  | 3000-5000          | 25            | 34        | -    | dB     |        |
|                                                  | 5000-6000          | 20            | 32        | -    | dB     |        |
| Amplitude balance<br>( S21/S31 )                 | 1805-1880          | -1.5          | -0.7/+0.7 | 1.5  | dB     |        |
| Phase balance<br>(( $\Phi$ S21- $\Phi$ S31)+180) | 1805-1880          | -10           | -6/+2     | 10   | deg    |        |
| Input impedance (Unbalanced)                     |                    | 50            |           |      | Ohm    |        |
| Output impedance (Balanced)                      |                    | 150//18nH     |           |      | Ohm    |        |
| Operating temperature                            |                    | -30 to +85    |           |      | °C     |        |

(\*1) Specification of insertion loss includes loss that comes from the test board.



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| Part Number   | FAR-G6QC-1G9600-N2FA            | Version 1.0aa                          | -              |

**Table 2.Electrical specifications(Filter 2)**

| Pass Band (1930-1990MHz)                         |                    |               |           |      |        |        |
|--------------------------------------------------|--------------------|---------------|-----------|------|--------|--------|
| Item                                             | Condition<br>(MHz) | Specification |           |      | Unit   | Remark |
|                                                  |                    | Min.          | Typ.      | Max. |        |        |
| Insertion Loss                                   | 1930-1990          | -             | 1.7       | 2.4  | dB(*1) |        |
| Ripple                                           | 1930-1990          | -             | 0.4       | 1.1  | dB     |        |
| Input VSWR                                       | 1930-1990          | -             | 1.5       | 2.0  | -      |        |
| Output VSWR                                      | 1930-1990          | -             | 1.6       | 2.0  | -      |        |
| Absolute attenuation                             | DC-1850            | 30            | 36        | -    | dB     |        |
|                                                  | 1850-1910          | 11            | 13        | -    | dB     |        |
|                                                  | 2010-2070          | 12            | 17        | -    | dB     |        |
|                                                  | 2070-2150          | 19            | 21        | -    | dB     |        |
|                                                  | 2150-3000          | 25            | 31        | -    | dB     |        |
|                                                  | 3000-6000          | 25            | 36        | -    | dB     |        |
| Amplitude balance<br>( S21/S31 )                 | 1930-1990          | -1.5          | -0.7/+0.7 | 1.5  | dB     |        |
| Phase balance<br>(( $\Phi$ S21- $\Phi$ S31)+180) | 1930-1990          | -10           | -4/+3     | 10   | deg    |        |
| Input impedance (Unbalanced)                     |                    | 50            |           |      | Ohm    |        |
| Output impedance (Balanced)                      |                    | 150//22nH     |           |      | Ohm    |        |
| Operating temperature                            |                    | -30 to +85    |           |      | °C     |        |

(\*1) Specification of insertion loss includes loss that comes from the test board.



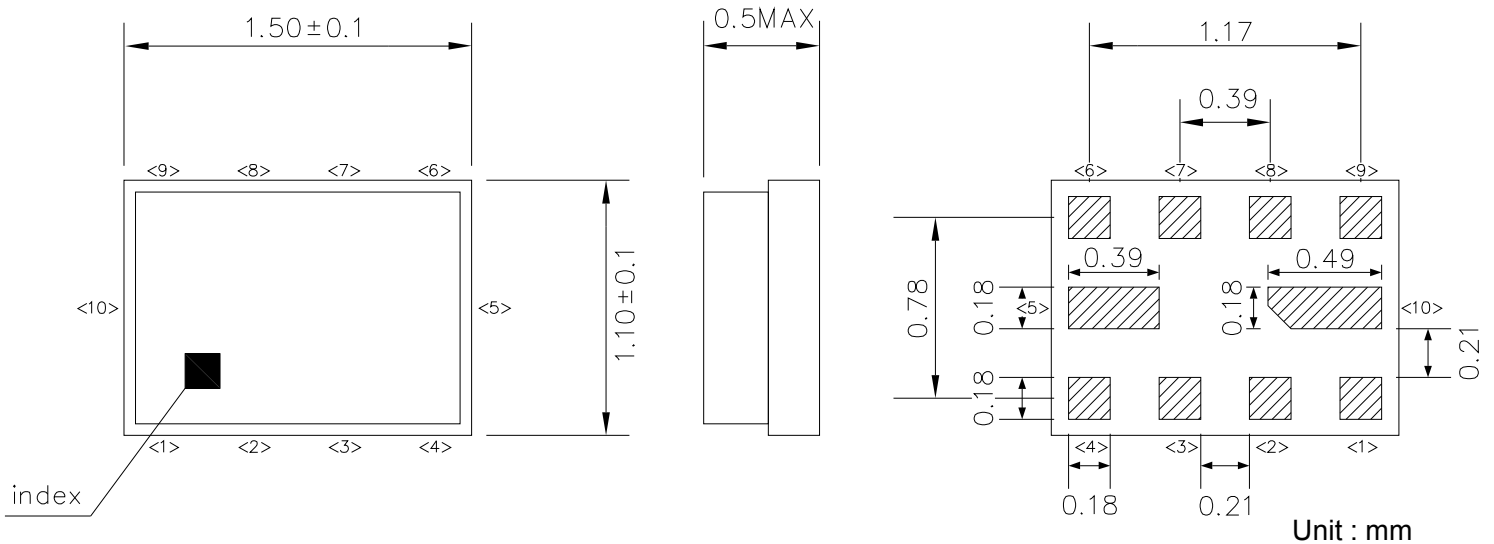
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| System        | GSM1800/GSM1900 Rx (50/150ohms) | Date                                   | March 31, 2010 |
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## Dimensions

Device size: 1.5yp. x 1.1typ. x 0.5max.

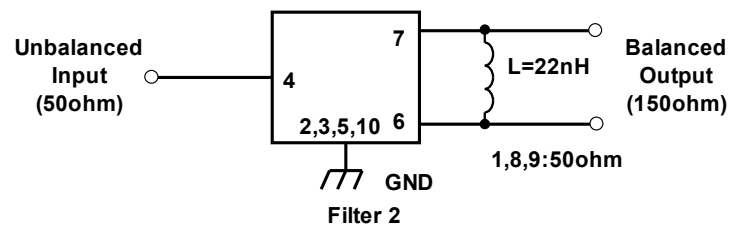
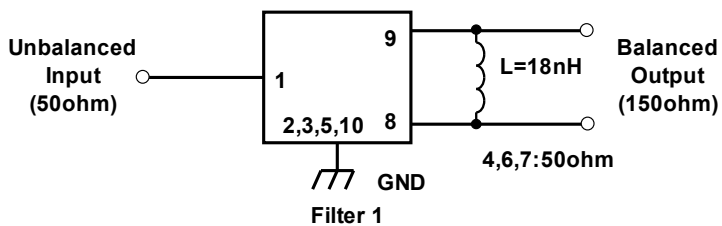


## Pin Configuration

| Pin No. | Pin name | Description                 |
|---------|----------|-----------------------------|
| 1       | IN       | Filter1 input pin           |
| 2       | GND      | Ground                      |
| 3       | GND      | Ground                      |
| 4       | IN       | Filter2 input pin           |
| 5       | GND      | Ground                      |
| 6       | OUT      | Filter2 balanced output pin |
| 7       | OUT      | Filter2 balanced output pin |
| 8       | OUT      | Filter1 balanced output pin |
| 9       | OUT      | Filter1 balanced output pin |
| 10      | GND      | Ground                      |

| Filter No. | Passband(MHz) | System     |
|------------|---------------|------------|
| 1          | 1805 ~ 1880   | GSM1800-Rx |
| 2          | 1930 ~ 1990   | GSM1900-Rx |

## Evaluation Circuit

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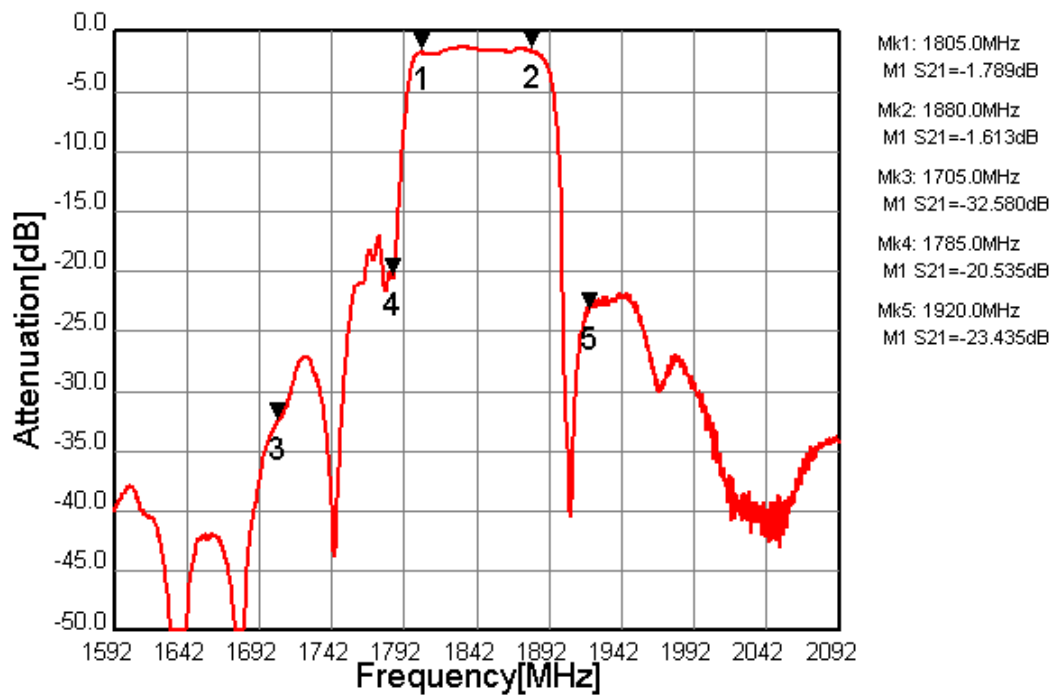


Fig.1 Pass-band Characteristic (Filter1)

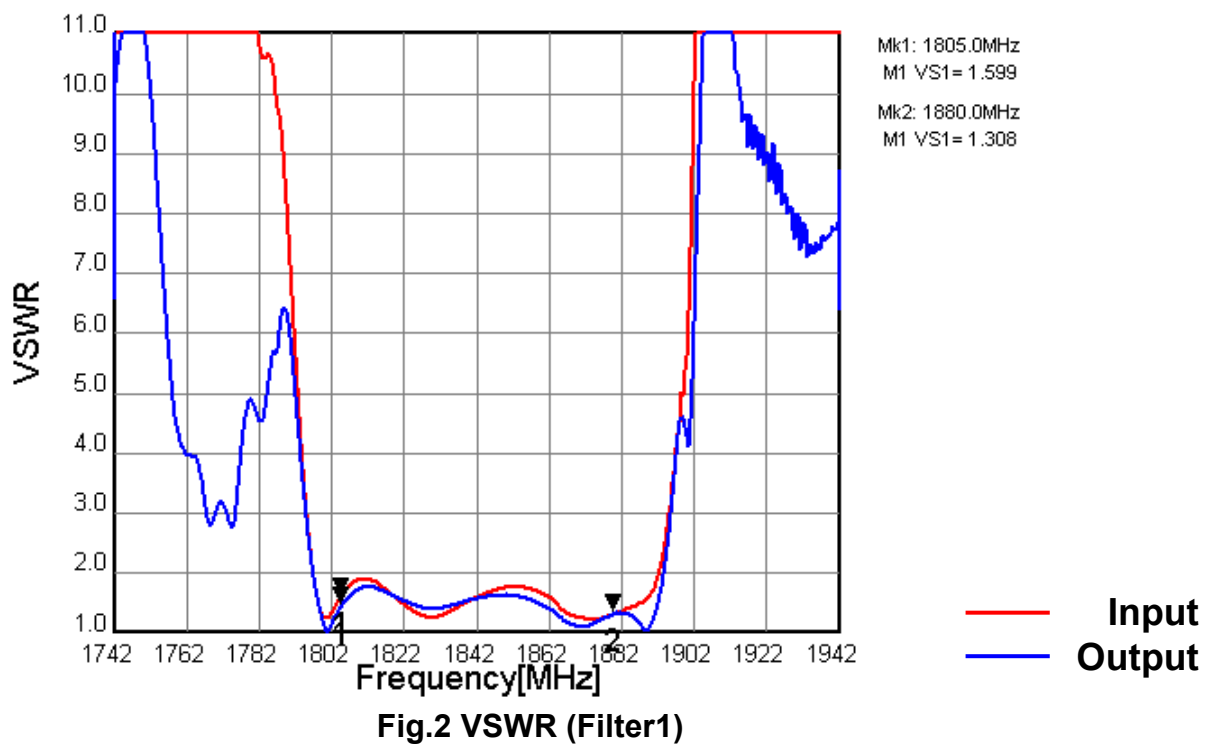


Fig.2 VSWR (Filter1)

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| System        | GSM1800/GSM1900 Rx (50/150ohms) | Date                                   | March 31, 2010 |
| Part Number   | FAR-G6QC-1G9600-N2FA            | Version 1.0aa                          | -              |

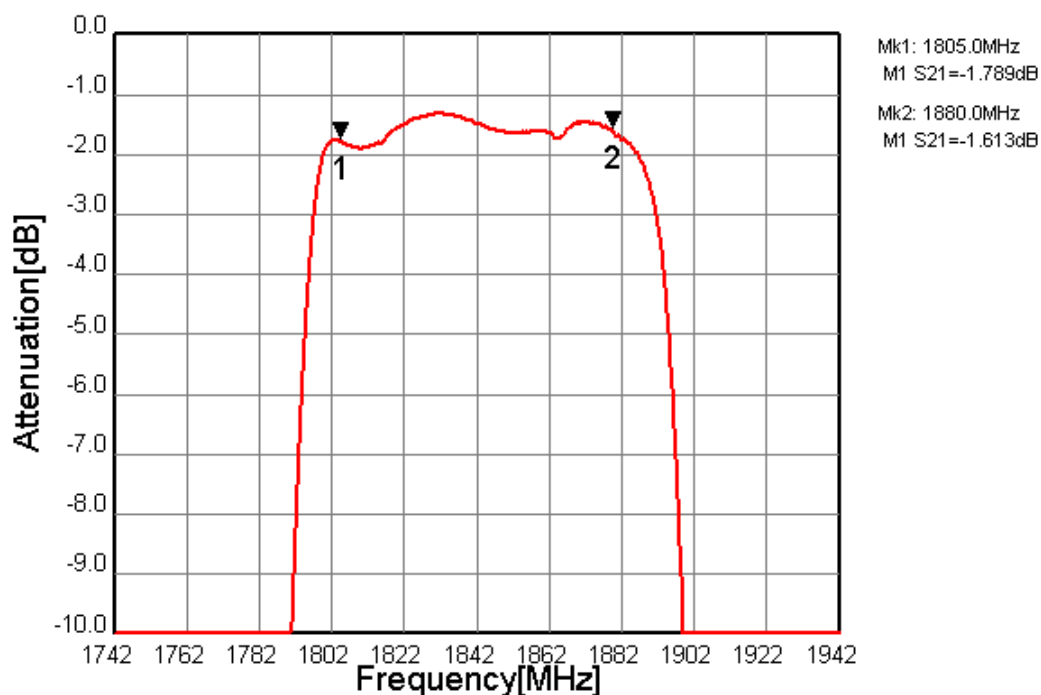


Fig.3 In-band Characteristic (Filter1)

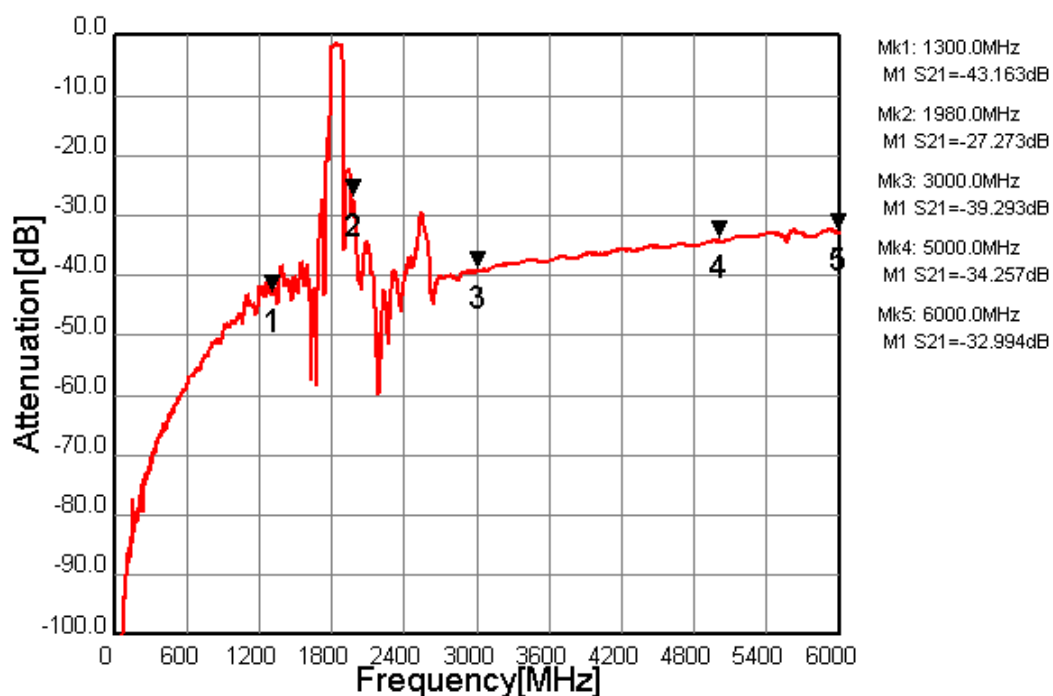


Fig.4 Wide-band Characteristic (Filter1)



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| System        | GSM1800/GSM1900 Rx (50/150ohms) | Date                                    | March 31, 2010 |
| Part Number   | FAR-G6QC-1G9600-N2FA            | Version 1.0aa                           | -              |

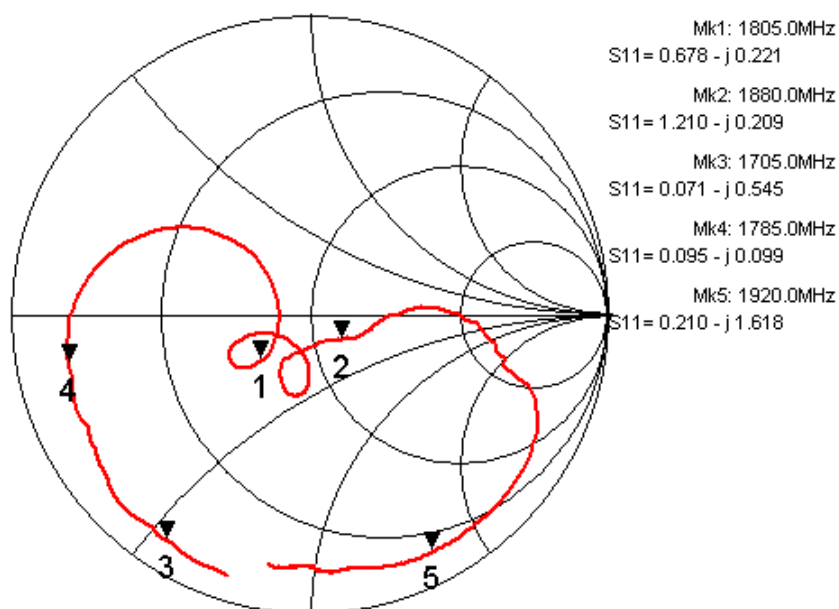


Fig.5 Impedance (S11) (Filter1)

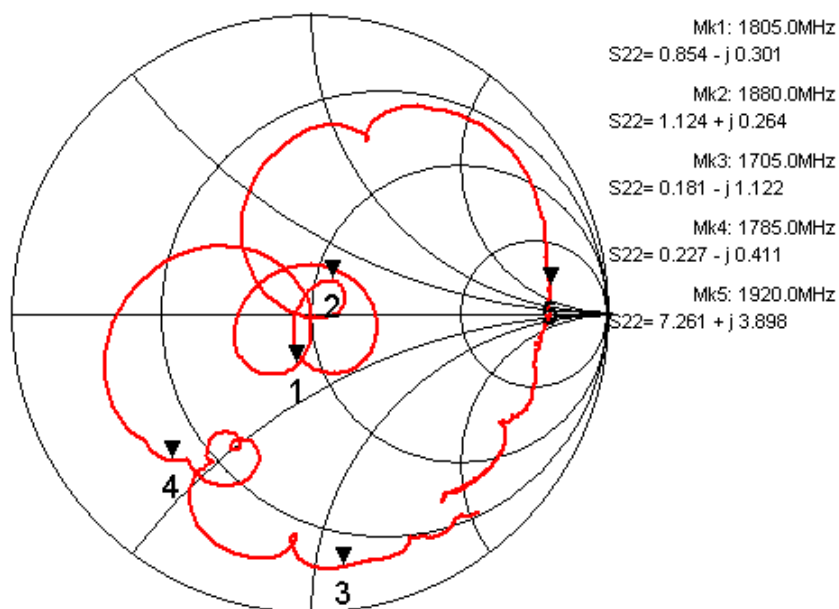


Fig.6 Impedance (S22) (Filter1)



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| Part Number   | FAR-G6QC-1G9600-N2FA            | Version 1.0aa                          | -              |

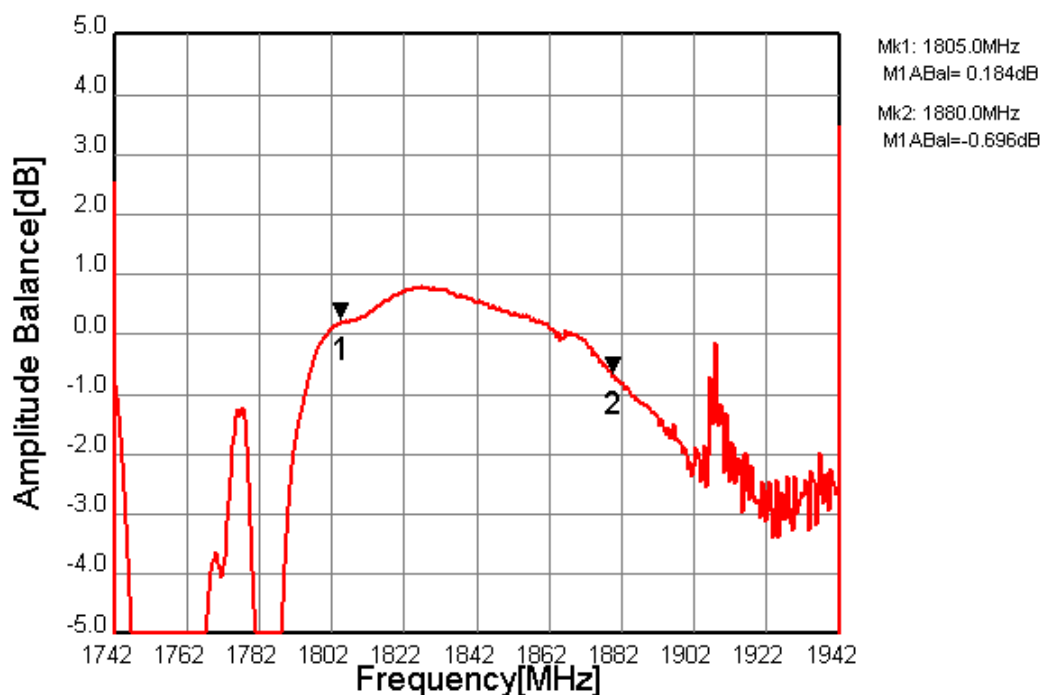


Fig.7 Amplitude Balance (Filter1)

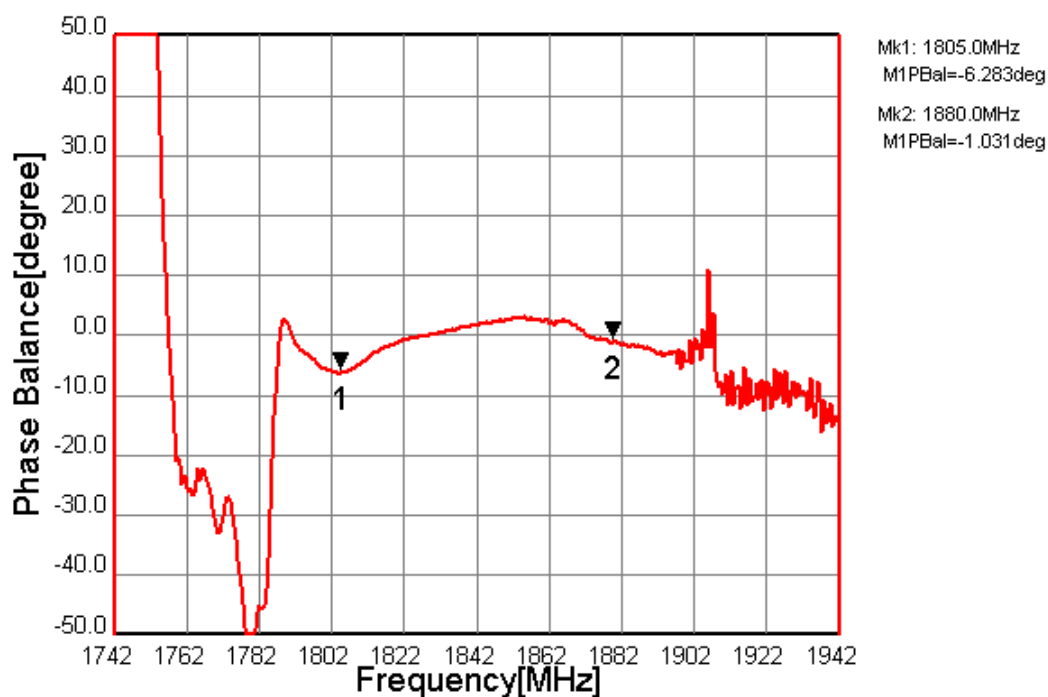


Fig.8 Phase Balance (Filter1)



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| Part Number   | FAR-G6QC-1G9600-N2FA            | Version 1.0aa                          | -              |

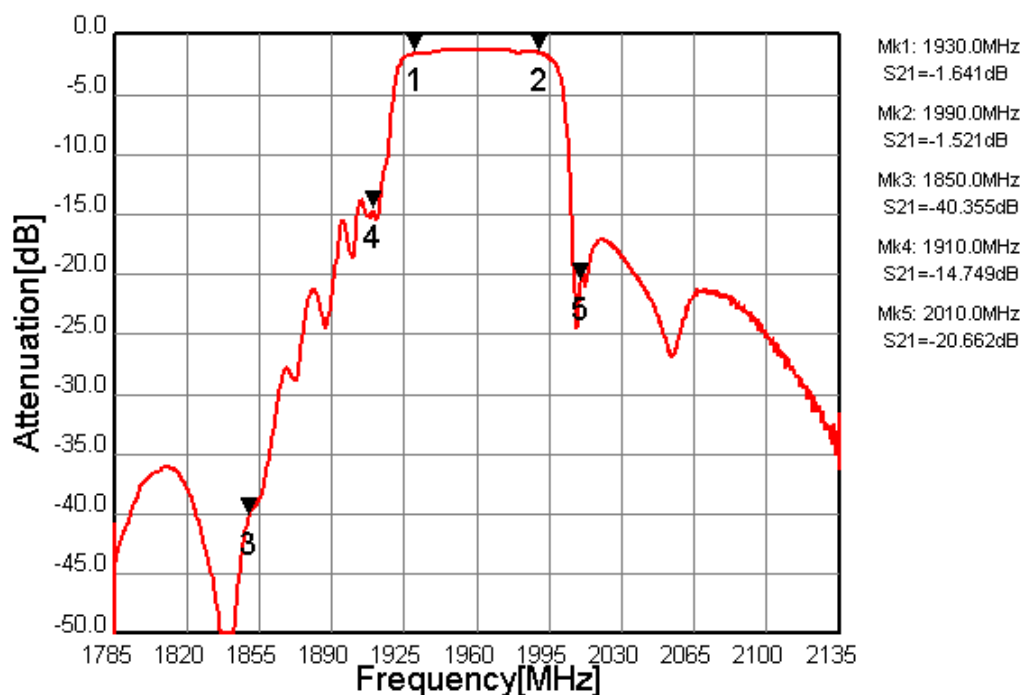


Fig.9 Pass-band Characteristic (Filter2)

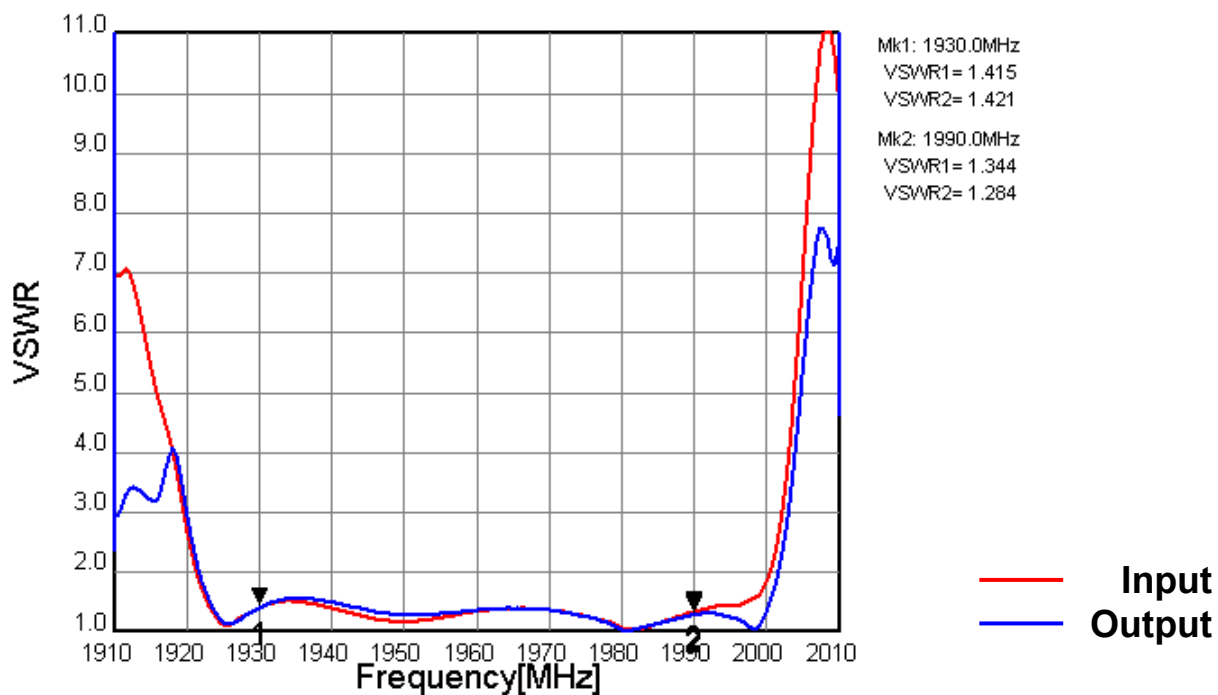


Fig.10 VSWR (Filter2)

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| Part Number   | FAR-G6QC-1G9600-N2FA            | Version 1.0aa                          | -              |

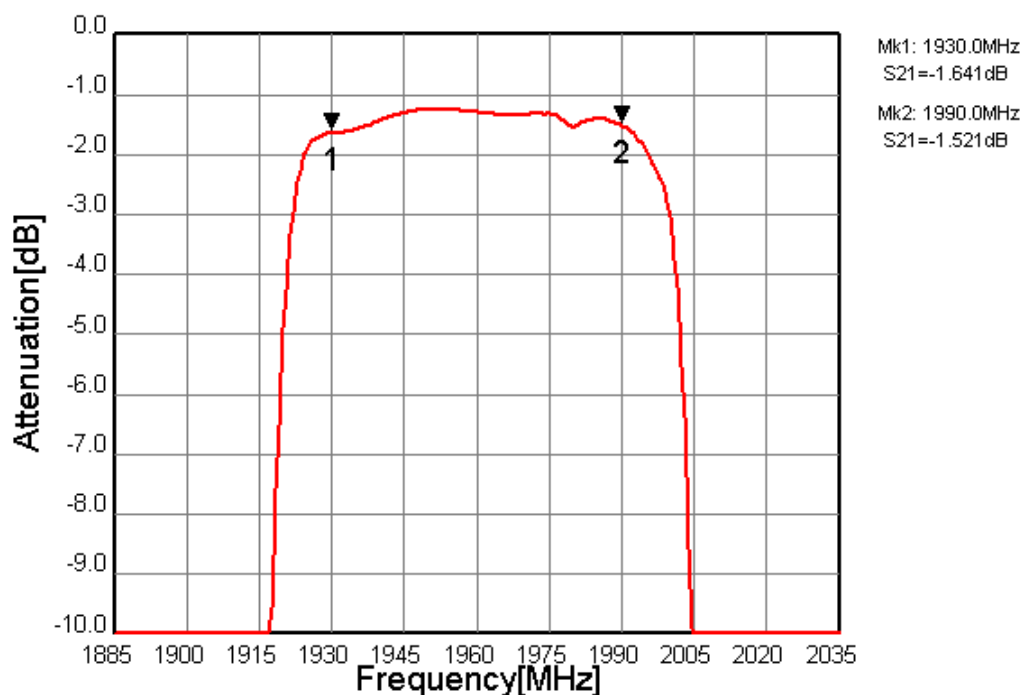


Fig.11 In-band Characteristic (Filter2)

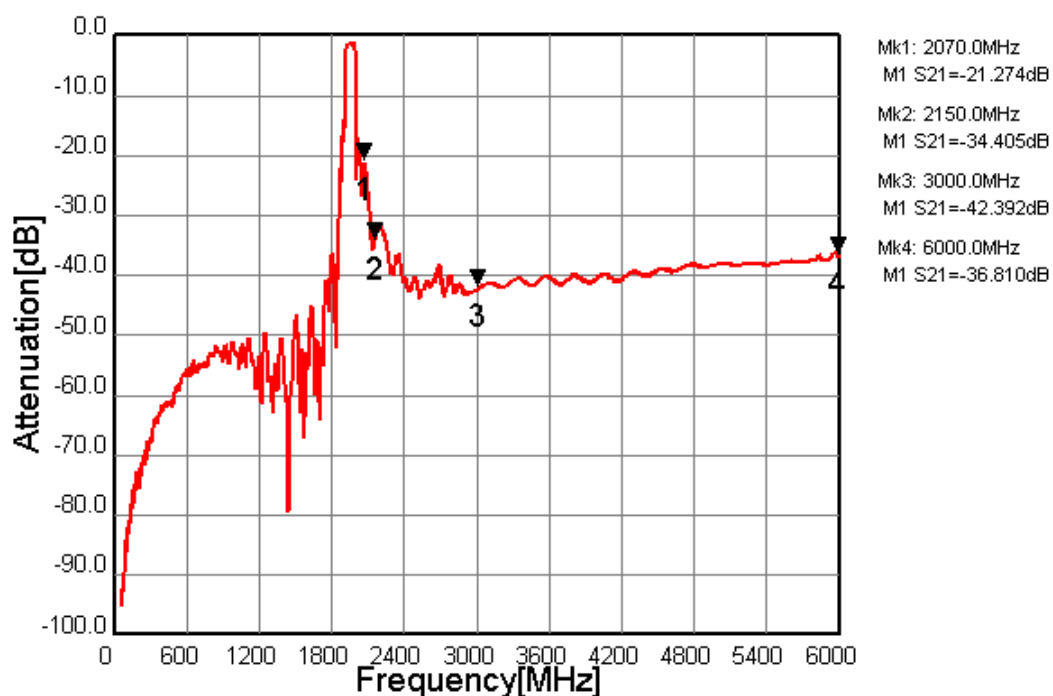


Fig.12 Wide-band Characteristic (Filter2)



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| Part Number   | FAR-G6QC-1G9600-N2FA            | Version 1.0aa                           | -              |

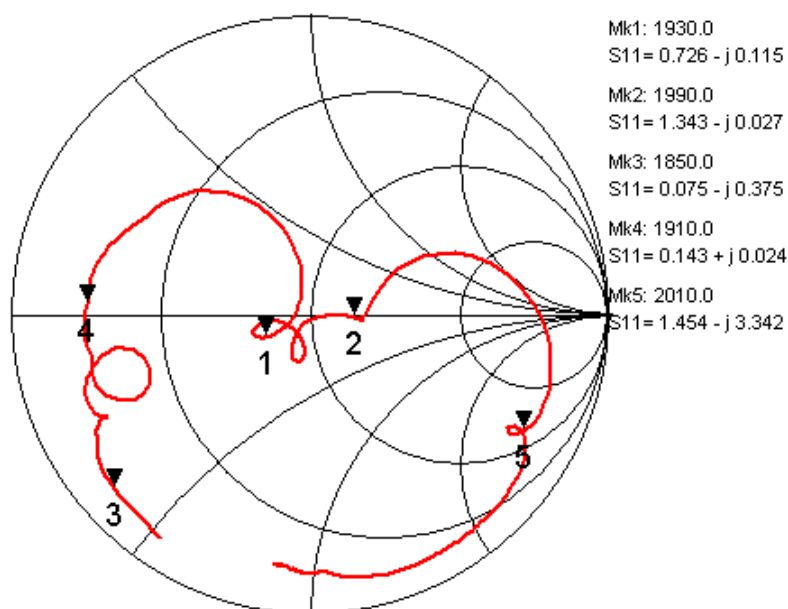


Fig.13 Impedance (S11) (Filter2)

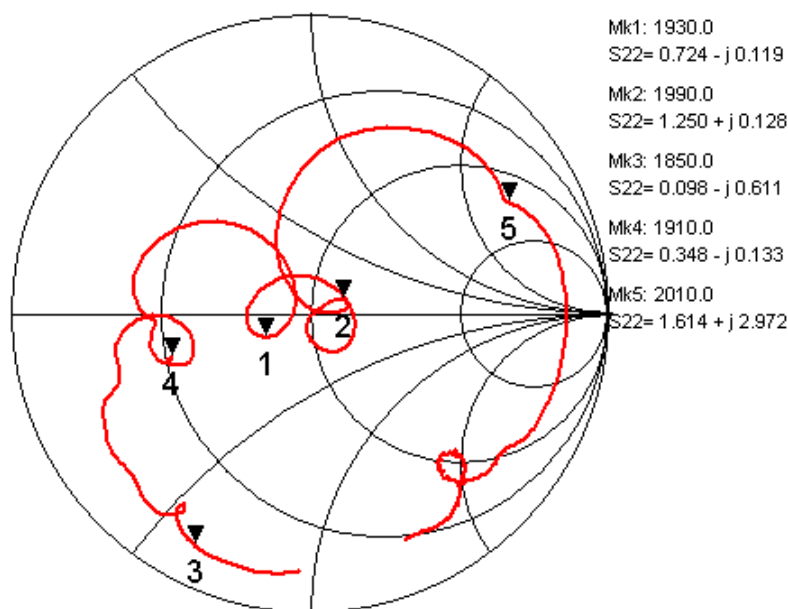


Fig.14 Impedance (S22) (Filter2)



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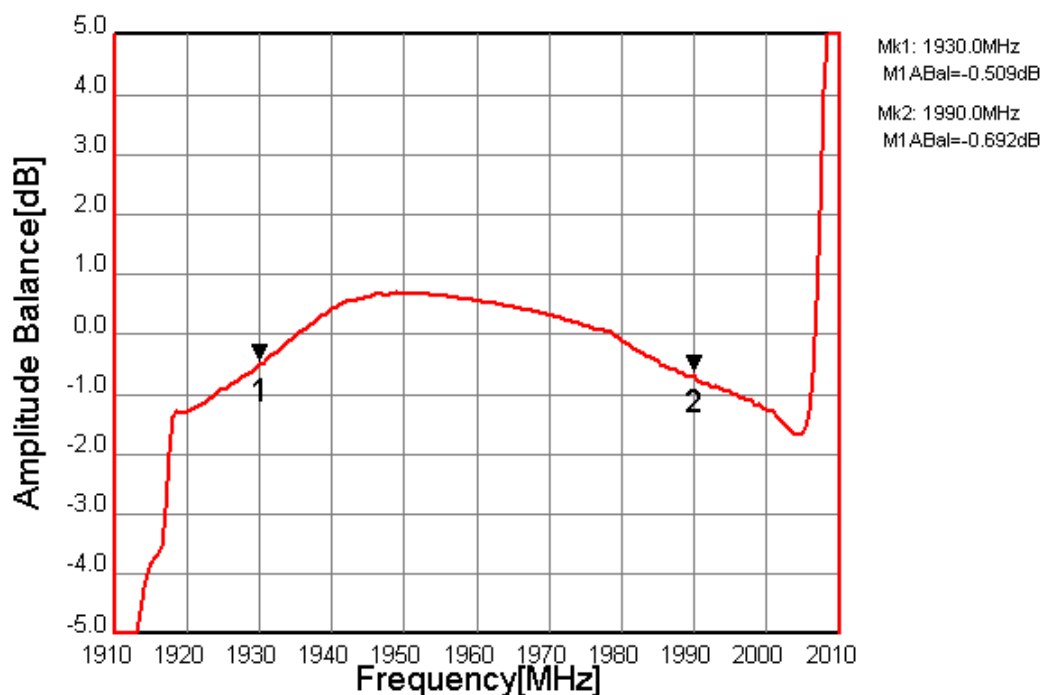


Fig.15 Amplitude Balance (Filter2)

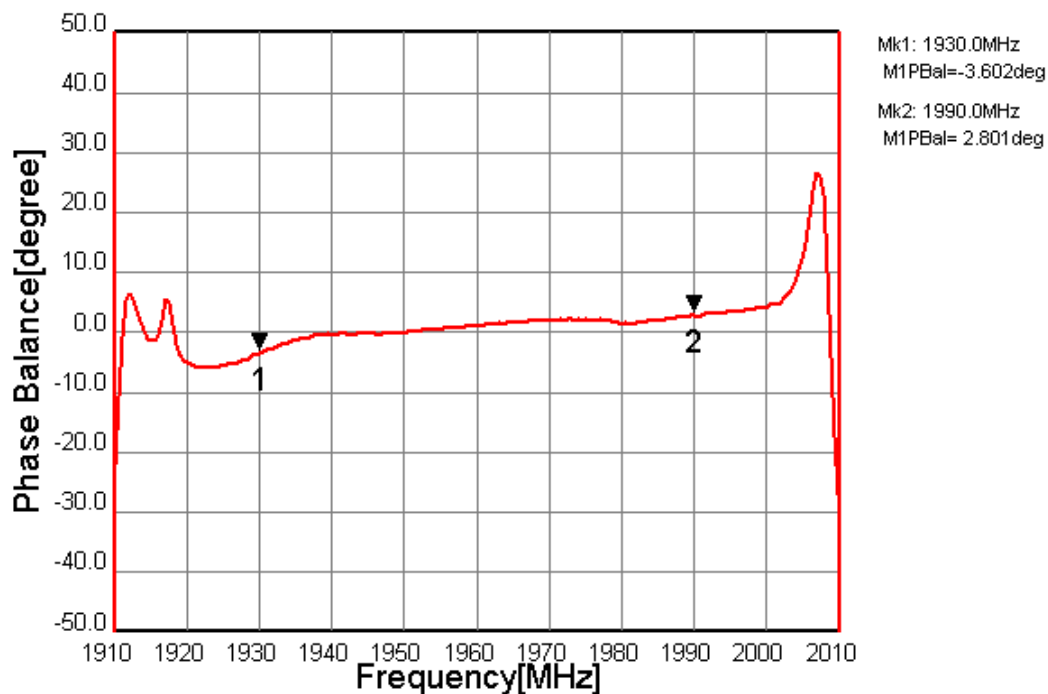


Fig.16 Phase Balance (Filter2)

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Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
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- Входной контроль качества.
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- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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