

Approved by:

Checked by:

Issued by:

SPECIFICATION

PRODUCT: SAW FILTER

MODEL: HDF45A1



SHOULDER ELECTRONICS LIMITED

1.SCOPE

This specification shall cover the characteristics of SAW Filter with F45A1 used for the cordlessphone.

2.ELECTRICAL SPECIFICATION

2.1 Maximum Rating (Ta = 25 °C)

| Characteristics | | Ratings | Unit |
|----------------------------|----------------|----------|------|
| Input signal voltage | | 5 | Vp-p |
| DC voltage | between input | | V |
| | between output | 3 | |
| | Between others | 15 | |
| AC voltage: | 50-60 Hz | 10 | Vp-p |
| Operating temperature rang | | -20 – 70 | °C |
| Storage temperature range | | -55 – 85 | °C |

2.2 Electrical Characteristics

| Type | 3dB passband (MHz) | Insertion-loss MAX(dB) | Stop-band Atten. MIN(dB) | Loop-loss MIN(dB) | Out-band Atten. (dB) | Impedance (Ω) |
|----------|--------------------|------------------------|--------------------------|-------------------|----------------------|---------------|
| HD F45A1 | 45.00~45.48 | 4 | 30 | 35 | 30 | 50/50 |

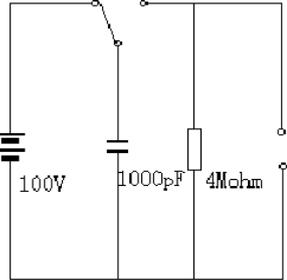
3. ENVIRONMENTAL PERFORMANCE CHARACTERISTICS

| Item Test condition | Allowable change of absolute Level in pass band(dB) |
|---|---|
| High temperature test 85°C 500H | < 1.0 |
| Low temperature test -40°C 500H | <1.0 |
| Humidity test 40°C 90-95% 500H | <1.0 |
| Thermal shock -20°C==25°C==80°C 5 cycle 30M 10M 30M | <1.0 |
| Solder temperature test Sold temp.260°C for 10 sec. | <1.0 |
| Soldering Immerse the pins melt solder at 260°C+5/-0°C for 5 sec. | More then 95% of total area of the pins should be covered with solder |

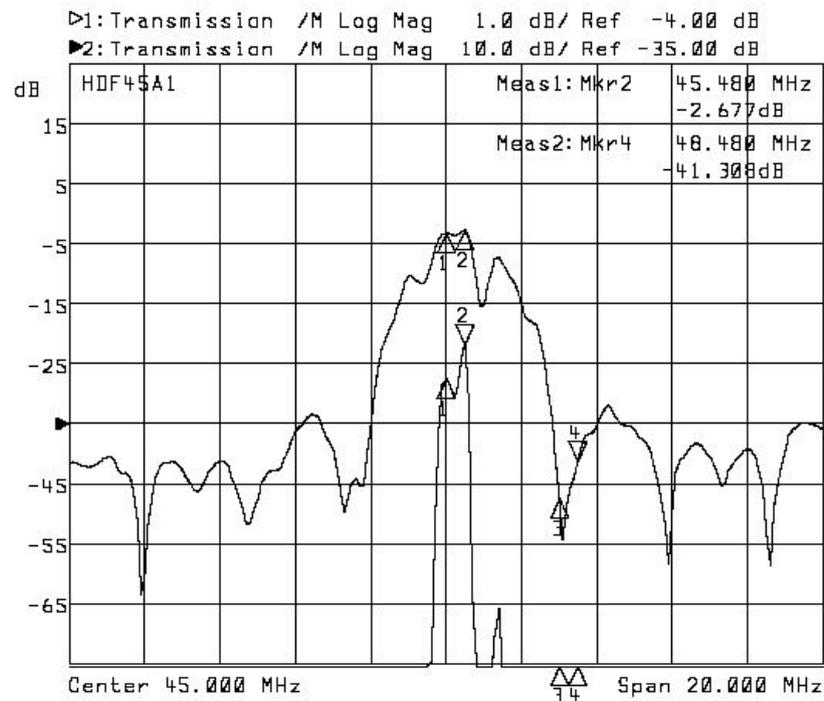
4.MECHANICAL TEST

| Item Test condition | Allowable change of absolute Level in pass band(dB) |
|--|--|
| Vibration test 600-3300rpm amplitude 1.5mm 3 directions 2 H each | <1.0 |
| Drop test On maple plate from 1m high 3 times | <1.0 |
| Lead pull test Pull with 1 kg force For 30 seconds | <1.0 |
| Lead bend test 90° bending.with 500g weigh 2times | <1.0 |

5. VOLTAGE DISCHARGE TEST

| Item Test condition | Allowable Chang of absolute Level in pass band(dB) |
|--|---|
| <p style="text-align: center;">Surge test Between any two electrode</p>  | <p><1.0</p> |

Typical Frequency Response



6.DIMENSION

