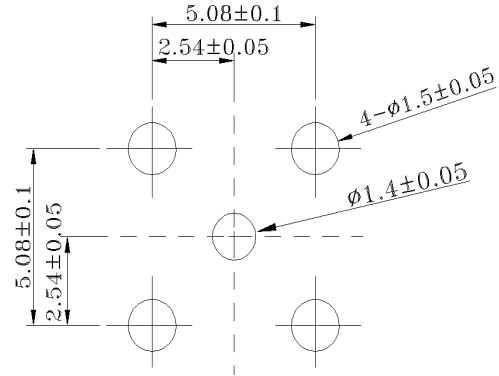
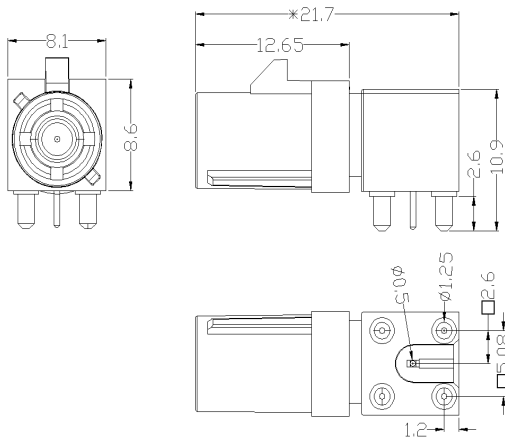


**Product specification**

**Drawing No. : KH-2FK1-E-RM-101**

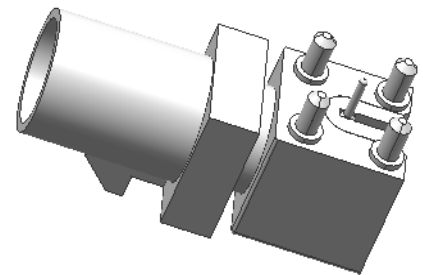
**Series description**

FAKRA connectors are designed to perform up to 6 GHz and meet the particular mechanical and environmental requirements of the automobile industry. This connector is designed to meet or exceed the requirement of specification for automotive RF connector systems. Interface is designed to meet DIN 72594-1 and automotive electrical & RF connector systems meet SAE/USCAR-2 & SAE/USCAR-17 performance specification.



**Electrical**

- |  |  |
|--|--|
| 1) Impedance                           | 50 $\Omega$ , Nominal  |
| 2) Frequency range                     | DC-6 GHz   |
| 3) VSWR(Return loss)                   | DC-2 GHz $\leq 1.4$ (15.56 dB)<br>2-3 GHz $\leq 1.5$ (13.98 dB)<br>3-6 GHz $\leq 1.6$ (12.74 dB) |
| 4) Dielectric withstanding voltage     | 800 VRMS, Min.   |
| 5) Insulation resistance               | $\geq 100$ M $\Omega$  |
| 6) Contact resistance                  |  |
| Original state                         | $\leq 10$ m $\Omega$   |
| After endurance or environmental tests | $\leq 40$ m $\Omega$   |



**Mechanical**

- |                            |                |
|----------------------------|----------------|
| 1) Outline dimensions      | Per Drawing    |
| 2) Durability              | 25 Cycles Min. |
| 3) Temperature range       | -40°C To 105°C |
| 4) Meet USCAR-2 & USCAR-17 |                |

**Material and finish**

| Component description | Material   | Finish         |
|-----------------------|------------|----------------|
| 1) Housing            | PBT        | Per key code   |
| 2) Contact            | Brass      | Gold plating   |
| 3) Insulator          | LCP        | Natural        |
| 4) Body               | Zinc alloy | Nickel plating |

|              |                    |                  |          |           |
|--------------|--------------------|------------------|----------|-----------|
| 深圳市金航标电子有限公司 | TITLE              |                  | DATE     | 2017-3-21 |
|              | FAKRA PCB R/A PLUG |                  | CREATED  | ERIC      |
| ECO          |                    |                  | CHECKED  | FANCY     |
| ECN          | P/N                | KH-2FK1-E-RM-101 | APPROVED | JASON     |
| DATE         | SHEET              | 1 OF 2           | REV.     |           |

## Product specification

Drawing No. : KH-2FK1-E-RM-101

### Environmental





|   |                           |                                 |
|---|---------------------------|---------------------------------|
| 1) Temperature range                    | -40°C To 105°C            |                                 |
| 2) Thermal shock                        | USCAR-17, Paragraph 4.5.1 | -40°C To 85°C, 100 Cycles       |
| 3) Vibration & Mechanical shock         | USCAR-2, Paragraph 5.4.6  | Random, 5-10 ms, 35Gs, 1/2 sine |
| 4) Temperature/Humidity cycling         | USCAR-2, Paragraph 5.6.2  | 40 Cycles, 8 Hours/Cycle        |
| 5) Adaptability of connector to welding | reflow soldering          | NO                              |
|   | wave soldering            | YES                             |

### Other

2FK1-X-RM-101: "X" Show key code

Key code see: FK-PLUG-KCX

### Key code

| KEY CODE  | PART NO.      | COLOR          | RAL  |
|---|---------------|----------------|------|
|  A   | 2FK1-A-RM-101 | JET BLACK      | 9005 |
|  B  | 2FK1-B-RM-101 | CREAM WHITE    | 9001 |
|  C | 2FK1-C-RM-101 | SIGNAL BLUE    | 5005 |
|  D | 2FK1-D-RM-101 | CLARET VIOLET  | 4004 |
|  E | 2FK1-E-RM-101 | LEAF GREEN     | 6002 |
|  F | 2FK1-F-RM-101 | NUT BROWN      | 8011 |
|  G | 2FK1-G-RM-101 | BLUE GREY      | 7031 |
|  H | 2FK1-H-RM-101 | HEATHER VIOLET | 4003 |
|  I | 2FK1-I-RM-101 | BEIGE          | 1001 |
|  K | 2FK1-K-RM-101 | CURRY          | 1027 |
|  L | 2FK1-L-RM-101 | CARMINE RED    | 3002 |
|  M | 2FK1-M-RM-101 | PASTEL ORANGE  | 2003 |
|  N | 2FK1-N-RM-101 | PASTEL GREEN   | 6019 |
|  Z | 2FK1-Z-RM-101 | WATER BLUE     | 5021 |

|              |  |                    |                  |         |          |           |       |  |
|--------------|--|--------------------|------------------|---------|----------|-----------|-------|--|
| 深圳市金航标电子有限公司 |  | TITLE              |                  | DATE    |          | 2018-3-21 |       |  |
|              |  | FAKRA PCB R/A PLUG |                  | CREATED |          | ERIC      |       |  |
| ECO          |  |                    |                  | CHECKED |          | FANCY     |       |  |
| ECN          |  | P/N                | KH-2FK1-E-RM-101 |         | APPROVED |           | JASON |  |
| DATE         |  | SHEET              | 2 OF 2           |         | REV.     |           |       |  |