

Q 3 Ans

A

The impedance matching case, no reflected power form the load side.
The 100% power of the incident signal will be transferred to the load.

B

let the characteristic impedance be Z_c
let the load impedance be Z_o

for $Z_o \neq Z_c$; $50 \neq 25$ Ohms

The incident signal power is interfered with by reflected power from the load side, power is not fully transferred to the load.

C

- 1-Impedance mismatching.
- 2-Damage to transmission line.
- 3-Un-desired torque(higher or lower than rated) applied to transmission line connectors.

D 1

7/16 DIN (male) connector
SMA Plug(male) connector

D 2

for 7/16 DIN(male) > 13mm Torque wrench
for SMA plug(male) > 3.5mm Torque wrench

E

- Do a visual inspection for any possible damage for both cable and connectors.
- Do continuity test using DMM to a certain end to end connectivity.