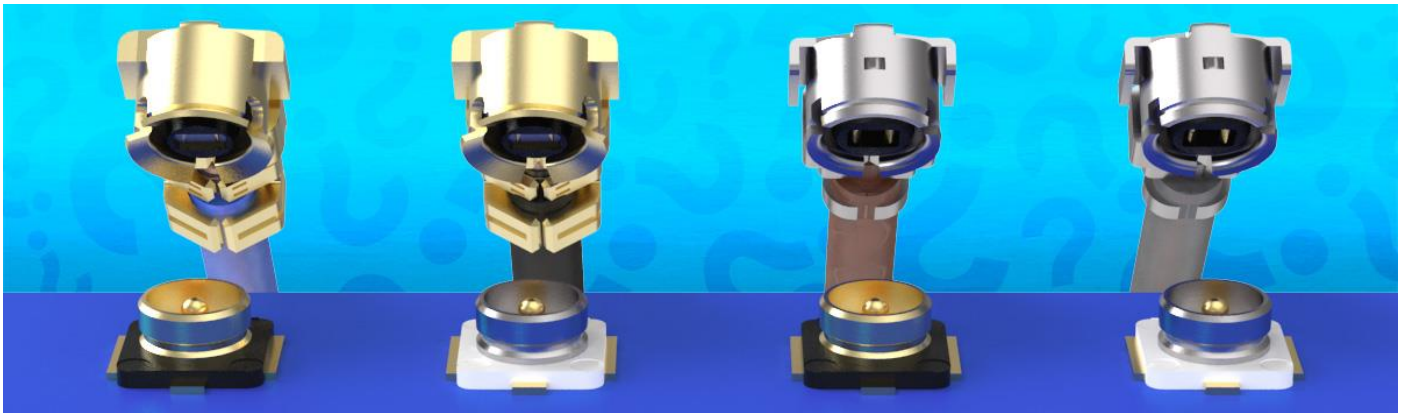


Demystifying Coaxial Micro Connector Intermatability – Hirose U.FL and I-PEX MHF



We're often asked questions about Hirose U.FL and I-PEX MHF micro coaxial connections and whether they are compatible with each other. Typically, there is either confusion or simply a lack of awareness between these two core types, and it's not always clear if they can, or will work interchangeably, and optimally. Through our extensive experience with coaxial connectors backed up with independent tests, we can provide clarity and give you the exact answers.

Are U.FL and I-PEX MHF connections Intermateable?

Yes, they are intermateable.

Does this mean I can mate an I-PEX MHF plug into a U.FL receptacle and Visa-Versa?

Correct, they are fully compatible Micro Coaxial connector types. For example, where a Hirose U.FL connector is used in a design, it can be swapped with an I-PEX MHF connector as a compatible alternative.

What tests were conducted to ensure compatibility?

An extensive 8 tests were conducted by I-PEX to ensure full compatibility and performance for electrical, environmental and mechanical attributes:

- 1) Dielectric withstanding voltage
- 2) Voltage Standing Wave Ratio (VSWR)
- 3) Mating & un-mating force
- 4) Durability
- 5) Vibration
- 6) Shock
- 7) Thermal Shock
- 8) Humidity

	Combination #1	Combination #2	Combination #3	Combination #4
Plug	I-PEX MHF	I-PEX MHF	Hirose U.FL	Hirose U.FL
Receptacle	I-PEX MHF	Hirose U.FL	I-PEX MHF	Hirose U.FL

Each test was conducted with four connector combinations. Readings and measurements were taken initially and compared after 30 cycles or after test completion.

What are the results of the tests?

The tests concluded that there were no abnormalities in measurements and readings for all combinations tested across each attribute. Exact details of each test can be found on the [full test report](#).

In Summary

Those looking for U.FL connectors can be confident that selecting an alternative I-PEX MHF connection will perform well within specification and as intended. We have many satisfied customers who have already swapped over, many of which did not actually know they were compatible in the first instance.

