

## 7865100-04 AND 7865200-04

### COAX CONTACTS USING RG142 COAXIAL CABLE

**CHARACTERISTICS:**

Material (Finish)			
	7865100-04	7865200-04	Specification
Center Contact	Brass	Brass	UNS-C17300 PER ASTM B196/B197 (7865100-04) UNS-C36000 PER ASTM B16 (7865200-04) Finish IAW MIL-PRF-39012
Outer Contact	Au (Gold) over Ni (Nickel)	Au (Gold) over Ni (Nickel)	UNS-C17300 PER ASTM B196/B197 (7865100-04) UNS-C36000 PER ASTM B16 (7865200-04) Finish IAW MIL-PRF-39012
Dielectric	PTFE	PTFE	MIL-P-19468
Crimp Ring	Brass 360 (Nickel)	Brass 360 (Nickel)	UNS-C36000 PER ASTM B16 Finish IAW AMS-QQ-N-290
Retaining Clip	BeCu (Nickel)	BeCu (Nickel)	UNS-C17200 PER ASTM B196/197 Finish IAW AMS-QQ-N-290
Electrical			
Impedance	50 Ohm	50 Ohm	-
Frequency range	DC – 12.4Ghz	DC – 12.4Ghz	MIL-PRF-39012
Dielectric Withstanding Voltage (DWV)	1000 VDC Min	1000 VDC Min	MIL-STD-202-301
Vibrations	< .1μs	< .1μs	MIL-STD-202-201
RF Leakage	>80dB	>80dB	MIL-PRF-39012
Contact Resistance	< 5mOhm	<5 mOhm	MIL-PRF-39012
Mechanical			
Cycle life	10,000	10,000	MIL-PRF-39012
Mating Force (Insertion/Withdrawal)	14.4 oz / 14.40 oz	14.4 oz / 14.40 oz	MIL-PRF-39012
Salt Atmosphere	-	-	MIL-STD 202-101
Moisture Resistance	-	-	MIL-STD-202-106
Thermal Shock	-	-	MIL-STD 202-107
Storage Temperature	-40 to 125 °C	-40 to 125 °C	MIL-STD-810
Operating Temperature	-40 to 100 °C	-40 to 100 °C	MIL-STD-810

### S-PARAMETER TEST METHOD

**MATERIALS:**

- RG142 COAXIAL CABLE
- SMA MALE CONNECTOR (AMPHENOL P/N: 901-9511-1)
- MICRO-COAX, CONTACT, FEMALE [RECEIVER] (MAC PANEL P/N: 7865100-04)
- MICRO-COAX, CONTACT, MALE [ITA] (MAC PANEL P/N: 7865200-04)

**TEST SETUP:**

- PATCH CORDS FOR 12", 36", AND 72" LENGTHS WERE CREATED WITH SMA CONNECTORS ON ONE END AND MAC PANEL CONTACTS ON THE OTHER.
- TEST DATA TAKEN USING A VNA WHOSE PORTS WERE CALIBRATED AT THE SMA REFERENCE PLANE. CALIBRATION METHOD CONSISTED OF A 2 PORT SOLT CALIBRATION WITH 12 TERM ERROR CORRECTION. ADDITIONAL INFORMATION MAY BE PROVIDED BY MAC PANEL ENGINEERING UPON REQUEST.
- PATCH CORD NUMBERS (GENERATED USING EASY CABLE UTILITY) SHOWN BELOW:

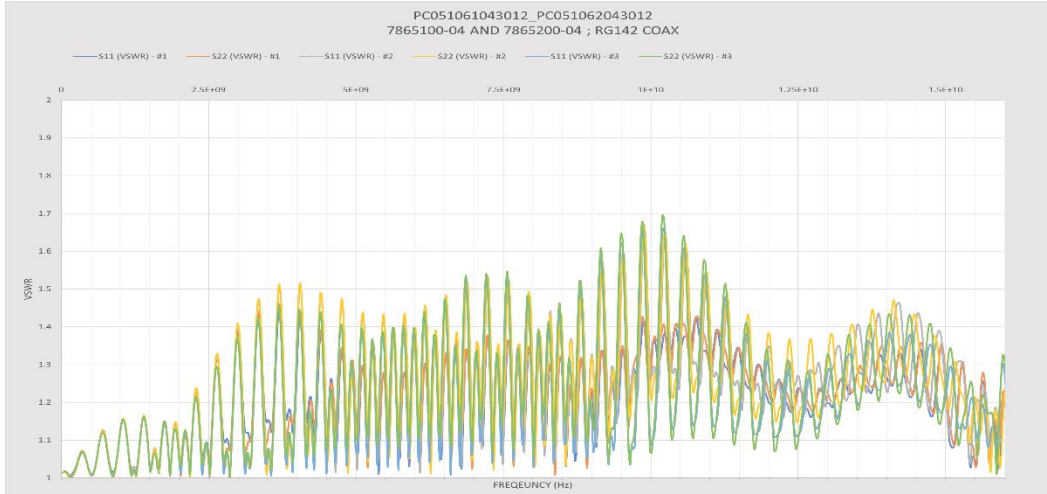
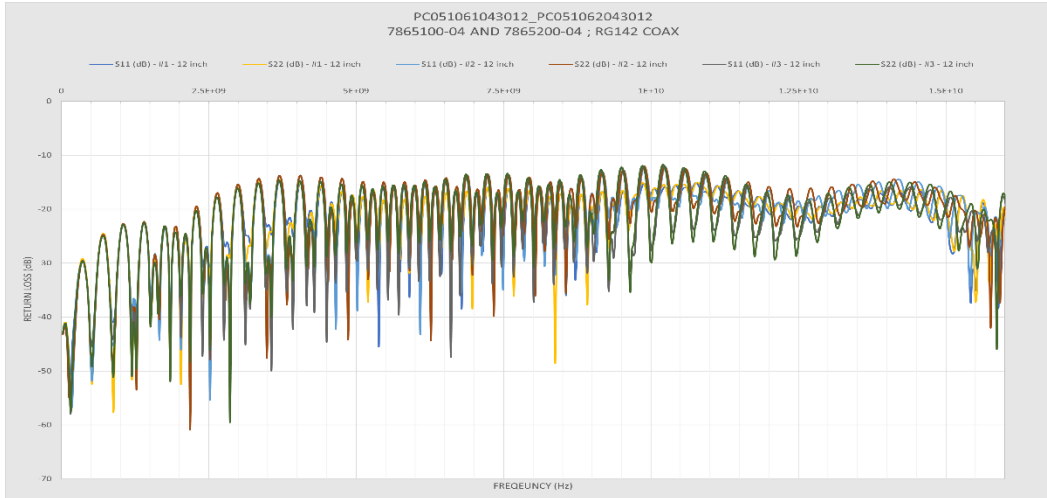
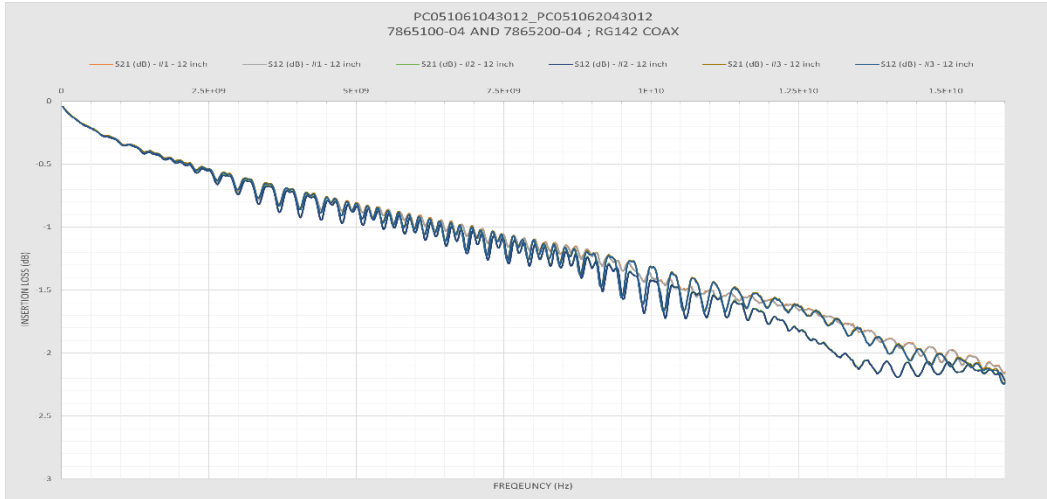
CONTACT	CABLE	PATCH CORD1	LENGTH1	QTY1		PATCH CORD2	LENGTH2	QTY2		PATCH CORD3	LENGTH3	QTY3
7865100-04	RG142	PC 051 061 043 012	12"	3		PC 051 061 043 036	36"	3		PC 051 061 043 036	72"	3
7865200-04	RG142	PC 051 062 043 012	12"	3		PC 051 062 043 036	36"	3		PC 051 062 043 036	72"	3



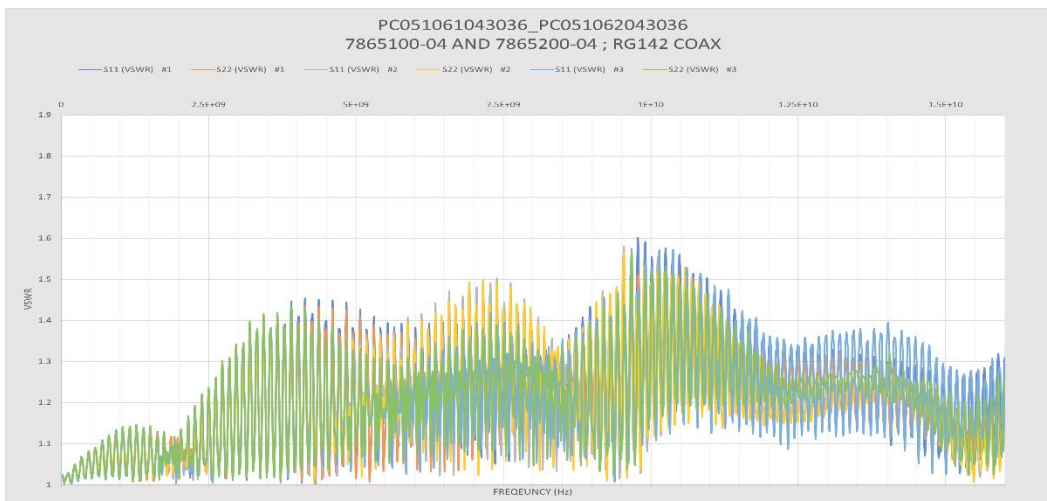
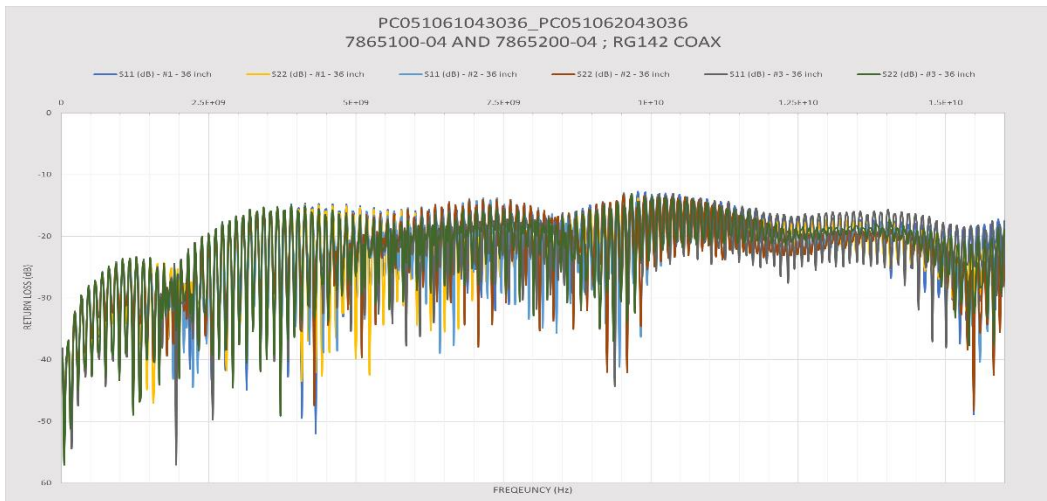
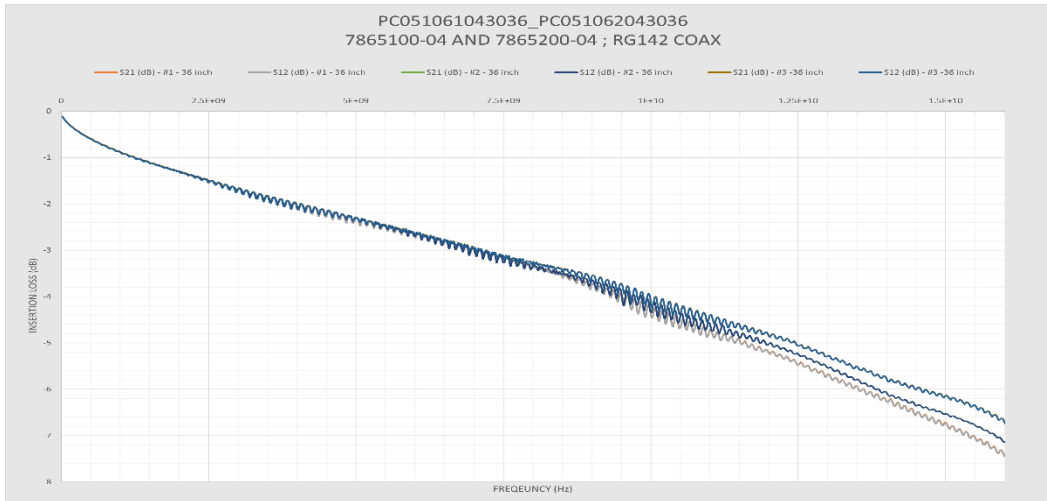
- DATA IS REPRESENTATIVE OF THE CUMULATIVE CONTRIBUTION OF TWICE THE CABLE LENGTH STATED, 2 SMA CABLE ADAPTERS, AND A MATED PAIR OF MAC PANEL CONTACTS.

**RESULTS:**

**12 INCH CABLE ASSEMBLIES**



### 36 INCH CABLE ASSEMBLIES



## 72 INCH CABLE ASSEMBLIES

