

PCN – Process Change Notification

Change:	AA.162,B Series Antenna
Date:	2017/08/10
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Affected Products

Model#	Part Number	Changes
Ulysses AA.162.B GNSS Antenna	AA.162.B.501111 AA.162.B.501F21 AA.162.B.501421 AA.162.B.501L11	Change RG-174 coaxial cable shielding wire braiding from 48 braid (16*3/0.1mm) to 80 braid (16*5/0.1mm), in order to increase cable solderability, isolation capability and cable strength.

Type of Change

- Hardware Modification
 Production Process Advance
 Others –

Description of Change

Purpose: Quality and solderability improvement

In order to increase antenna cable solderability strength and isolation, Taoglas propose to change the RG-174 coaxial cable shielding wire braiding from 48 braid(16*3/0.1mm) to 80 braid (16*5/0.1mm). Taoglas has observed reduced quality of 48braid cable subsupplier and to maintain high quality standard we recommend to move to 80-braid density cable from our approved vendor. Taoglas has been using this 80-braid cable supplier for years and have very good experience over cable quality. Further Taoglas offers this improvement to customer with no increase in price.

Cable material is not changed, change only applies to braiding density.

Schedule

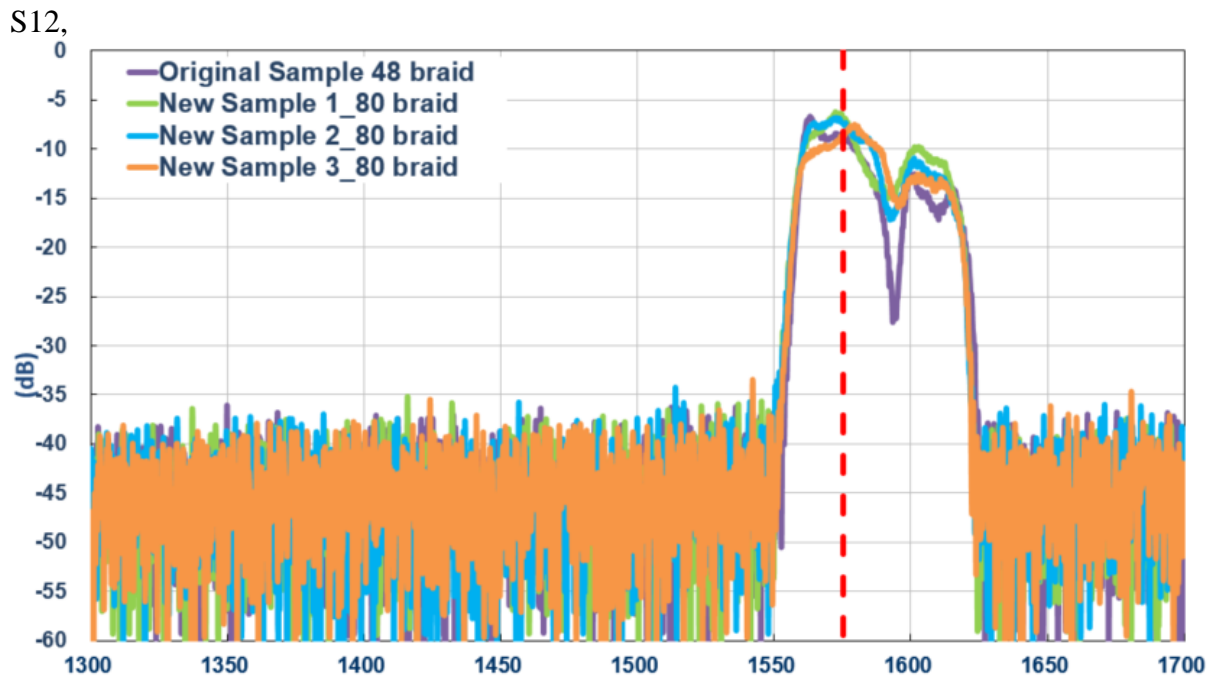
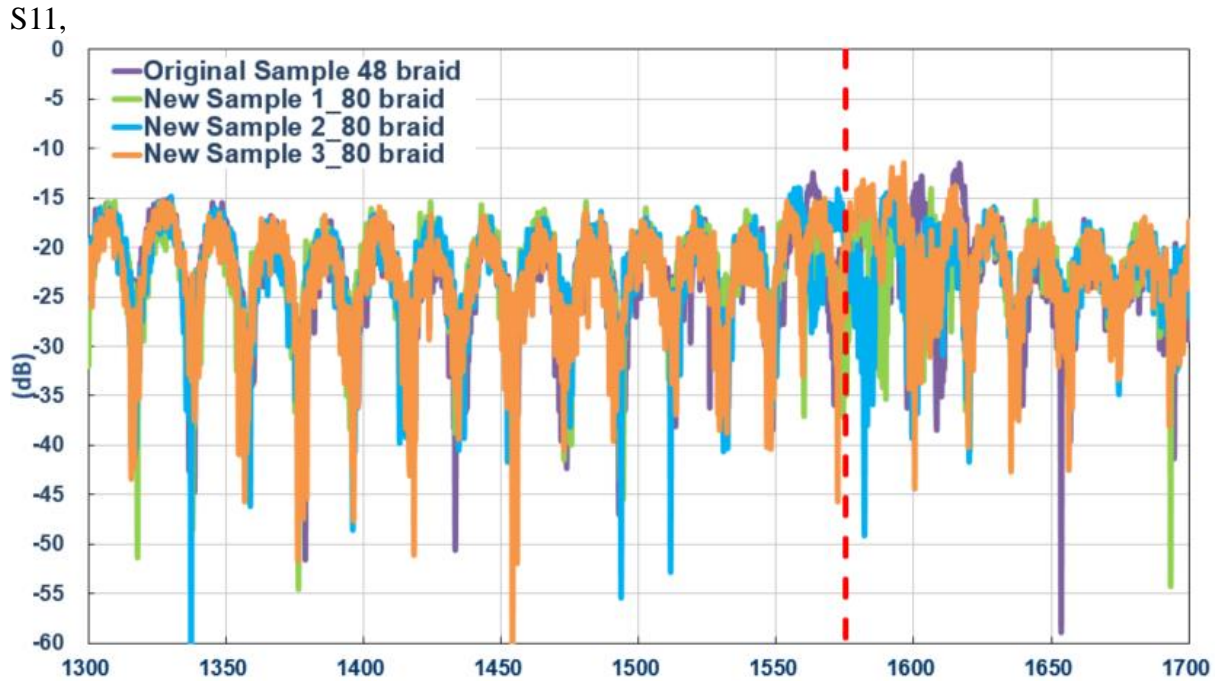
2017, August, Taoglas will input 80 braid RG-174 coaxial cable into production.

Forecast Estimated Transition Date

August/2017

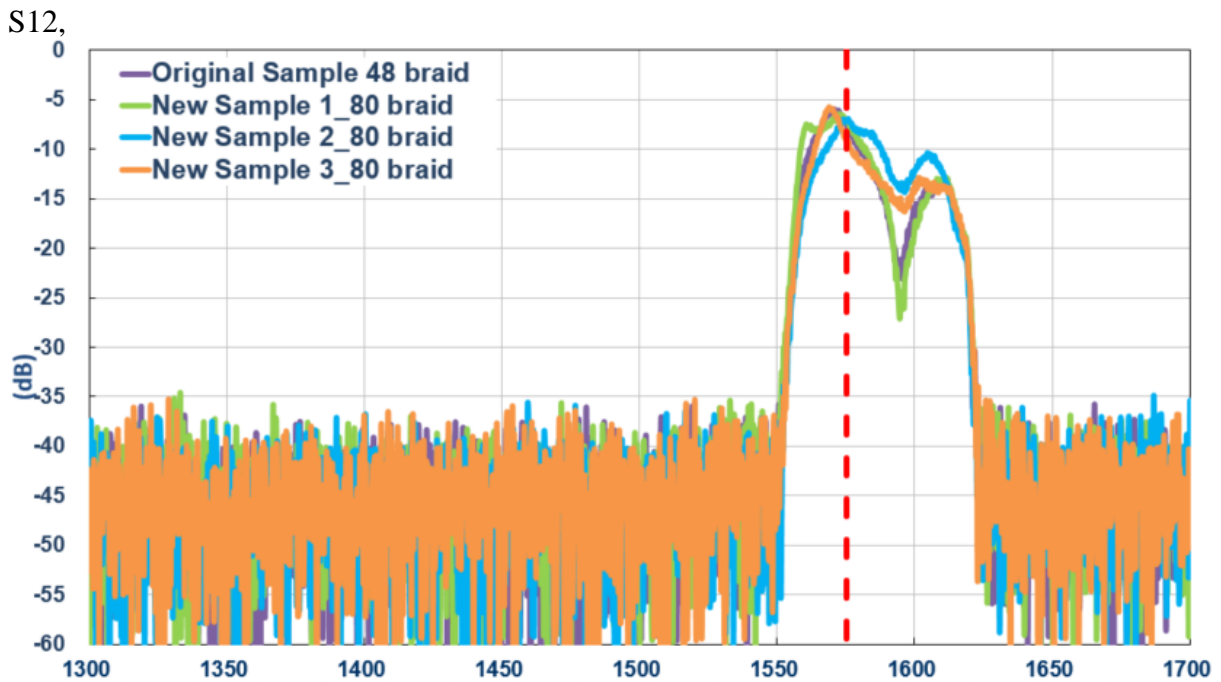
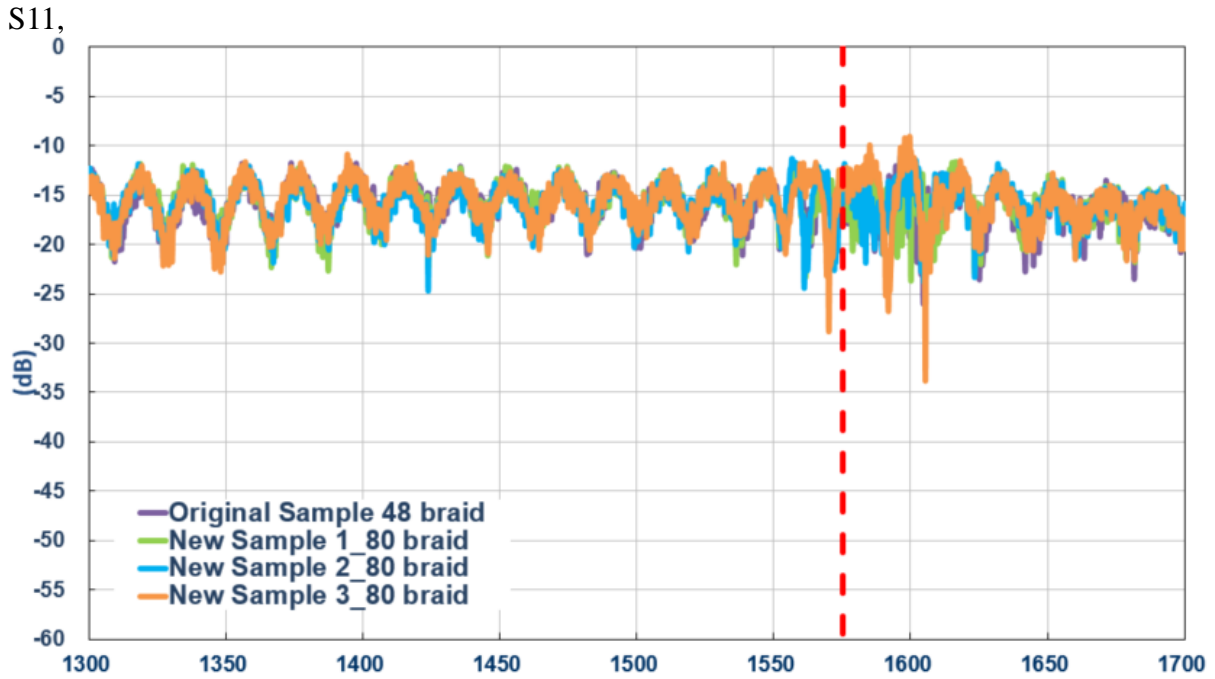
Antenna Performance Comparison

AA.162.B.501111



Antenna performance are the same on 48 braid cable and 80 braid cable.

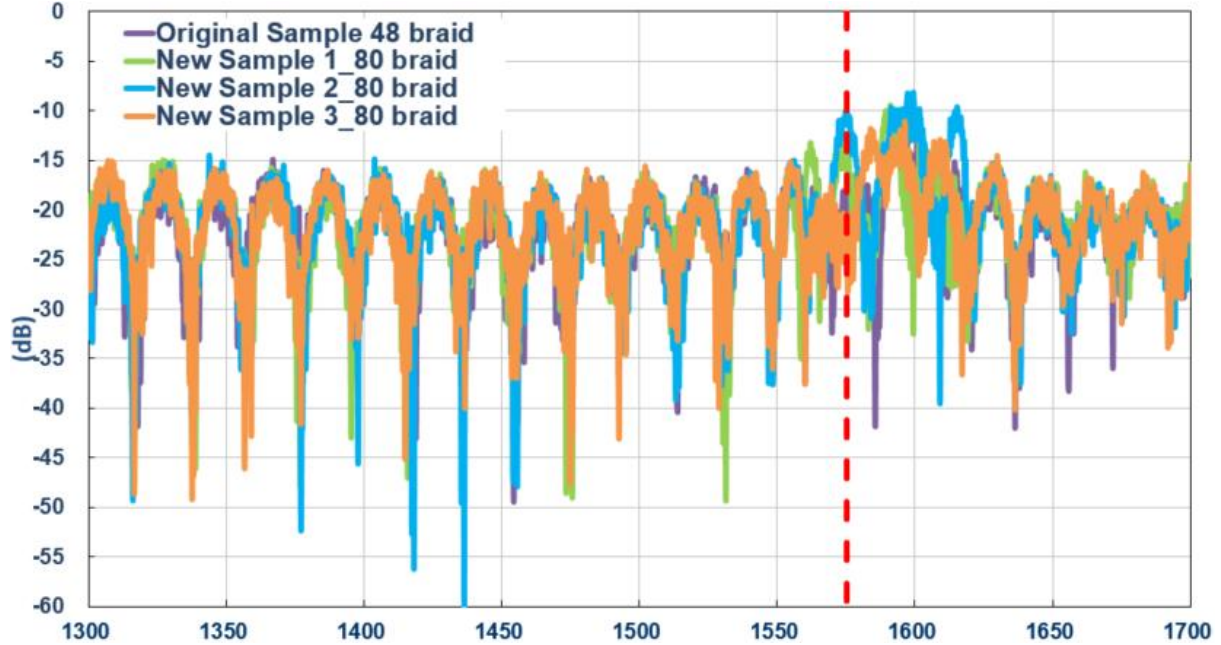
AA.162.B.501F21



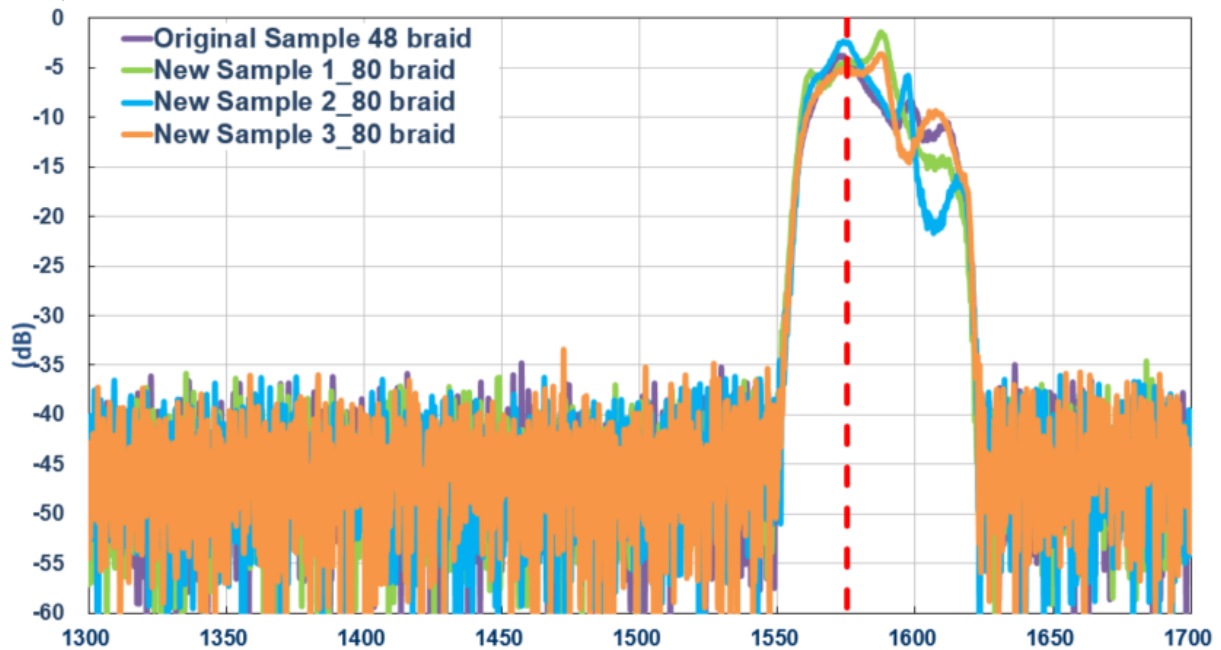
Antenna performance are the same on 48 braid cable and 80 braid cable.

AA.162.B.501421

S11,

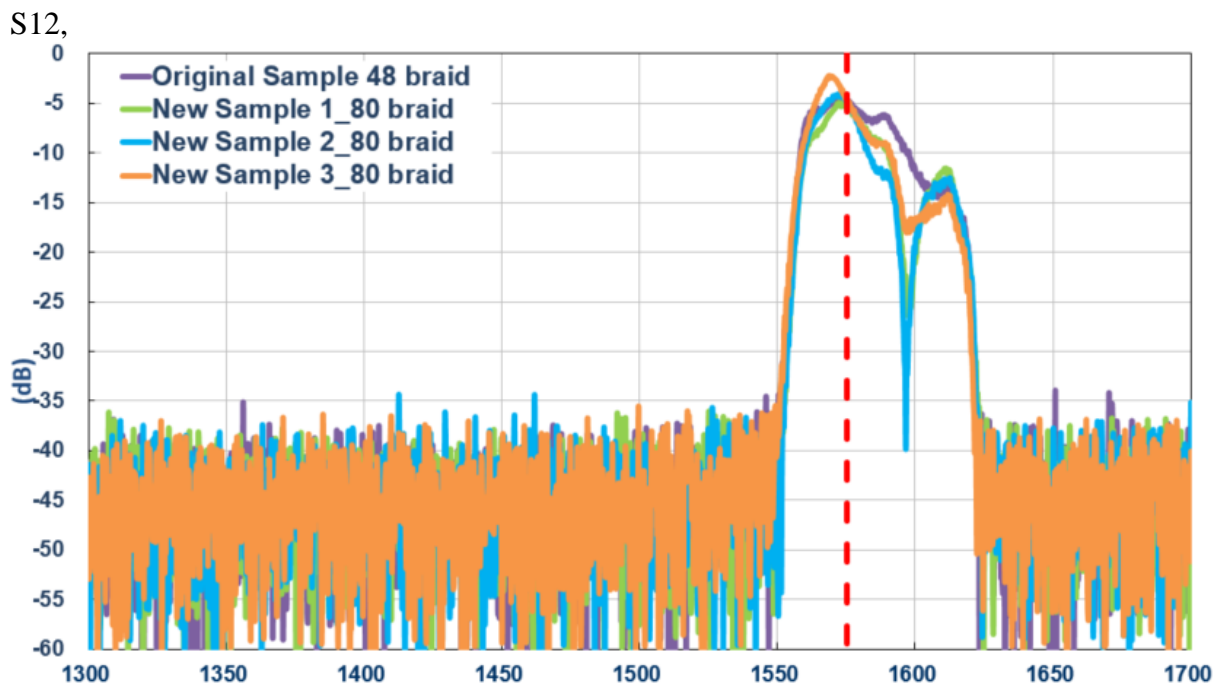
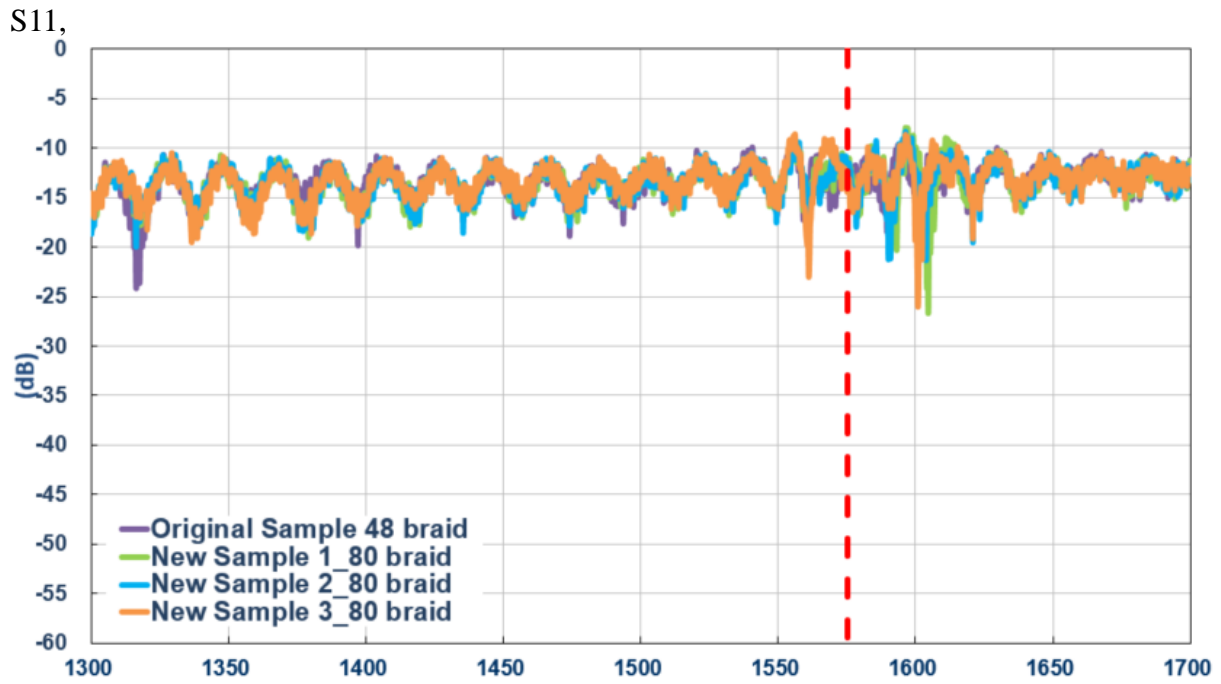


S12,



Antenna performance are the same on 48 braid cable and 80 braid cable.

AA.162.B.501L11



Antenna performance are the same on 48 braid cable and 80 braid cable.

Change Detail

48 braid RG-174 Coaxial cable spec,

SPECIFICATION

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Rev:2

STYLE	COAXIAL CABLE		DOCUMENT NO: A2174XE301T
SIZE	RG-174		ESTABLISHED DATE : 2011 / 05 / 30
UL STYLE			UL FILES NO.: E234496
STANDARD:			
CONDUCTOR	SIZE	26AWG	
	MATERIAL	BC	
	CONSTRUCTION	7 /0.160±0.008 mm	
INSULATION	STD. THICKNESS	0.52 mm	
	MIN. THICKNESS	0.44 mm	
	DIAMETER	1.52±0.10 mm	
	MATERIAL	XLPE	
	COLOR	NATURE	
BRAID	MATERIAL	TC	
	CONSTRUCTION	16/3/0.10±0.008 mm	
JACKET	STD. THICKNESS	0.39 mm	
	MIN. THICKNESS	0.31 mm	
	DIAMETER	2.70±0.15 mm	
	MATERIAL	P.V.C.	
	COLOR	BLACK	
ELECTRICAL & PHYSICAL PROPERTIES:			
RATING TEMPERATURE.		-20°C~+80°C	
RATING VOLTAGE		30 V	
CONDUCTOR RESISTANCE		142.6	Ω/Km/20°C max.
INSULATION RESISTANCE		DC. 500V	1000 MΩ-Km/20°C min.
INSULATION	Unaged	Tensile Strength	0.984 kg/mm ² MIN.
		Elongation	300 % MIN.
	Aged	Tensile Strength	UNAGED MIN. 75 % (100±1°C×48HRS)
		Elongation	UNAGED MIN. 75 % (100±1°C×48HRS)
JACKET	Unaged	Tensile Strength	1.05 kg/mm ² MIN.
		Elongation	100 % MIN.
	Aged	Tensile Strength	UNAGED MIN. 70 % (113±1°C×168HRS)
		Elongation	UNAGED MIN. 65 % (113±1°C×168HRS)
COLD BEND TEST		18±3 seconds for six turns @-20.0±2.0 °C/4h no breakdown	
ATTENUATION		1575.42 MHz	7.0 dB/5m max.
		2.32 GHz	11.0 dB/6.4m max.
		2.3325 GHz	11.0 dB/6.4m max.
CAPACITANCE		導體與遮蔽體間 1 KHz	100±8 pF/m
IMPEDANCE		10MHz ~ 3GHz	50±5 Ω

Approval:

Checker:



Designer:



80 braid RG-174 Coaxial cable spec,

客戶名稱										
規格書編號										
TH-20160512-61										
線種名稱										
RG 174										
線種規格										
#26 X 1C										
FILE NO.										
線 種 構 造										
芯 線 數 目	1 PC									
導 體	構 造	26AWG(7/0.16 mm)								
	材 質	裸軟銅絞線								
絕 緣	材 質	交連聚乙烯								
	厚 度	0.51 mm								
	外 徑	1.50 ± 0.10 mm								
	顏 色	原色								
隔 離	編 織	16/5/0.10 mm, 鍍錫軟銅線, 遮蔽率95% 以上								
被 覆	材 質	聚氯乙烯 (RoHS)								
	厚 度	0.40 mm								
	外 徑	2.75 ± 0.10 mm								
	顏 色	黑色								
印 字	RG-174/U COAXIAL CABLE 50 Ohm									
電 氣 特 性										
特性阻抗	50 ± 2 Ω									
靜電容量	101 pF/m Nom.									
波長傳輸率	66% Nom.									
耐電壓	2.0KV RMS Min.									
衰 減 (每100FT Nom)	MHz	1	10	50	100	200	400	700	900	1000
	dB	1.9	3.3	5.8	8.4	12.5	19.0	27.0	31	34