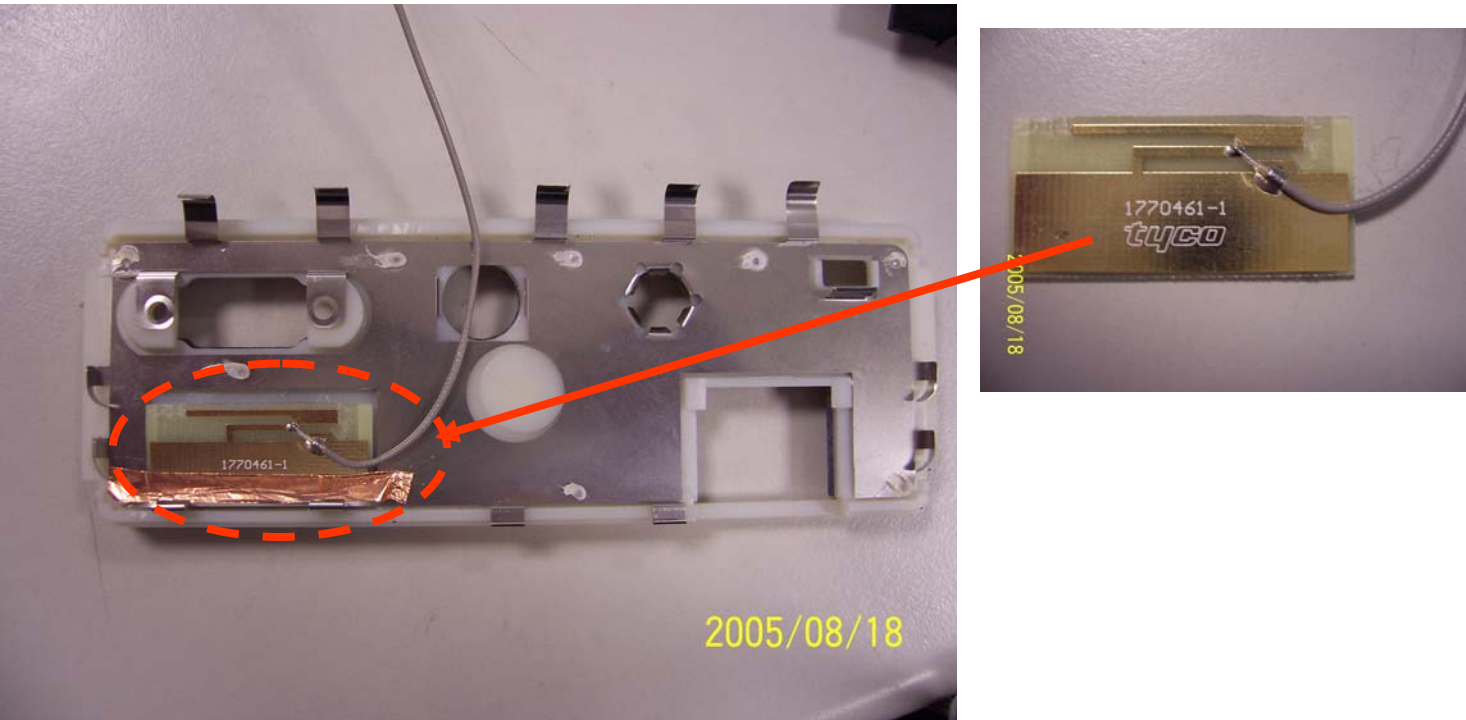




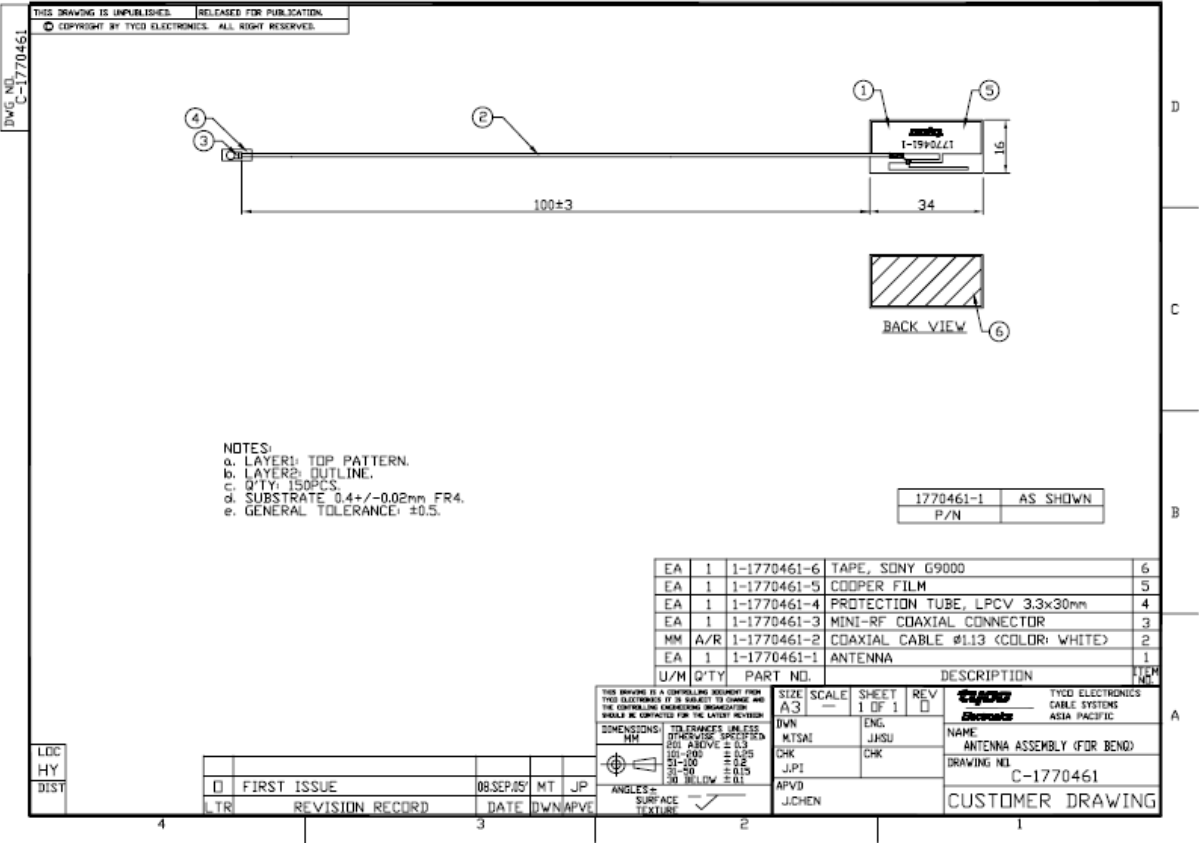
Product Spec.

Customer Name	BenQ Corporation		
Date	2005/11/24		
Customer P/N			
Tyco P/N	1770461-1		
Description	802.11 A+B+G WLAN Antenna		
Version	2A	Doc. Version	3

1. Antenna Description

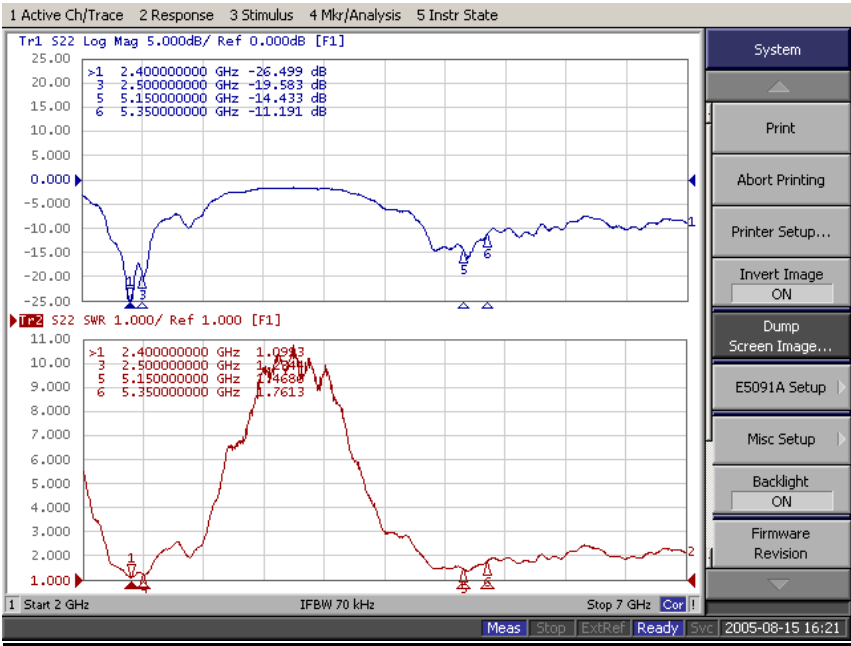


2. Outline drawing of antenna



3. Test Report

VSWR

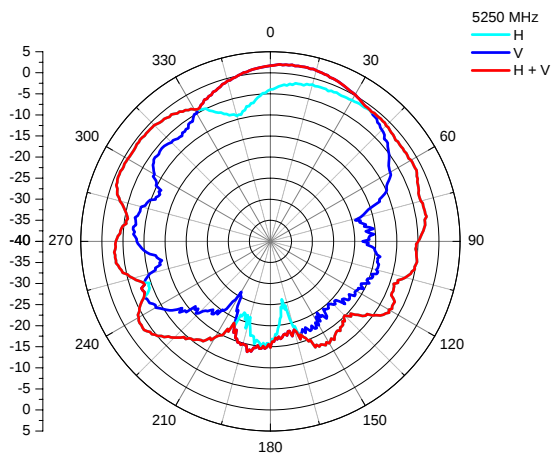
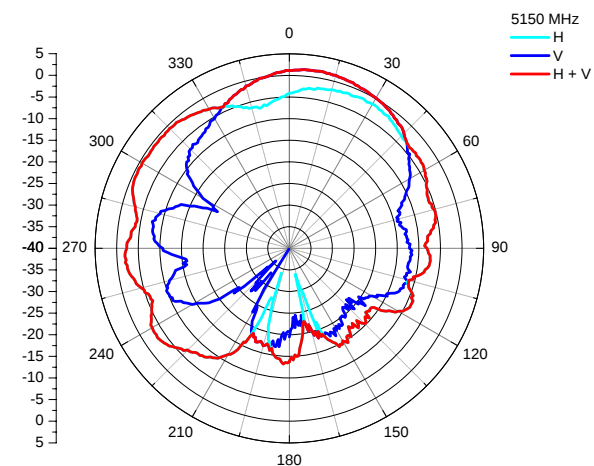
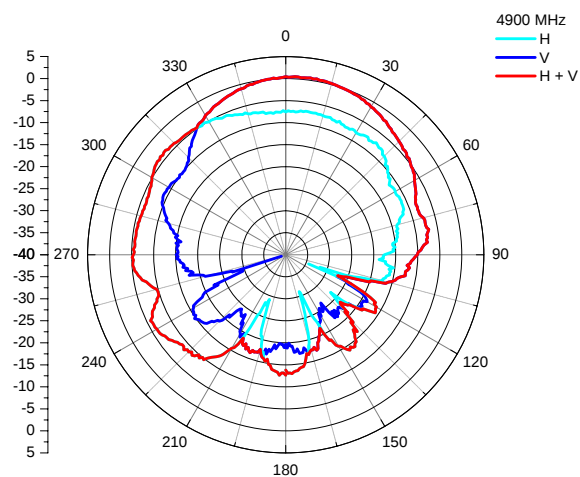
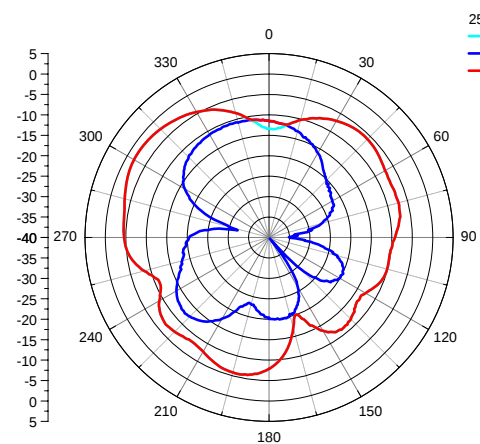
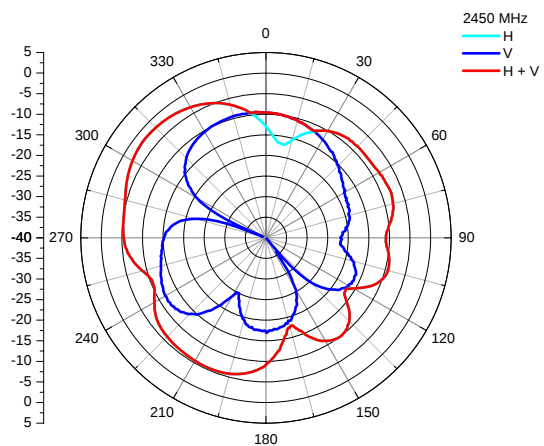
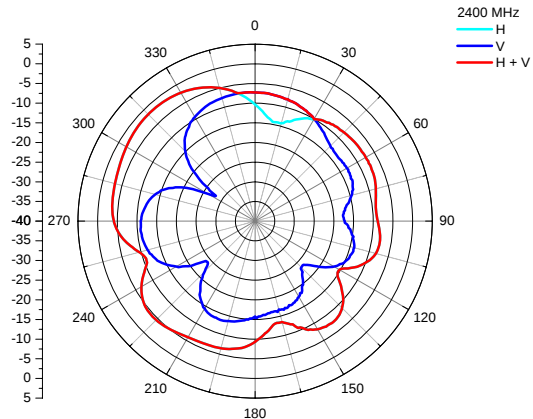


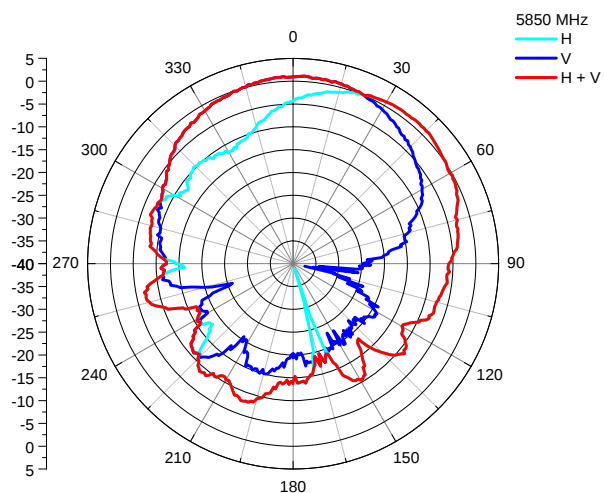
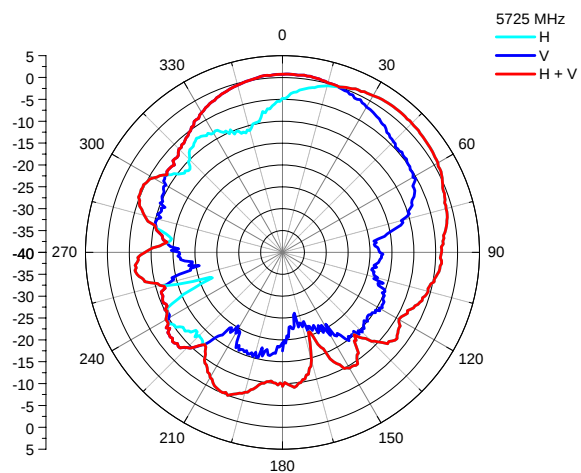
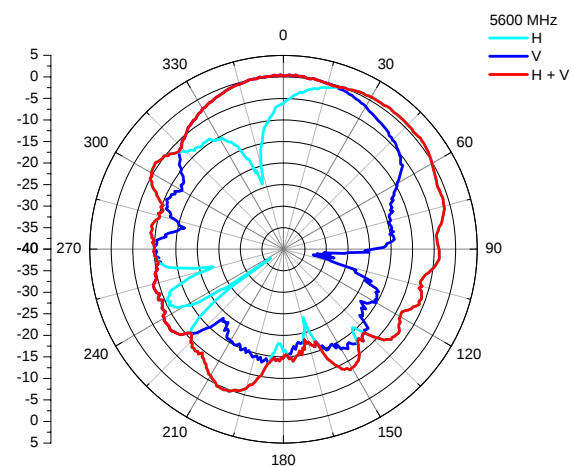
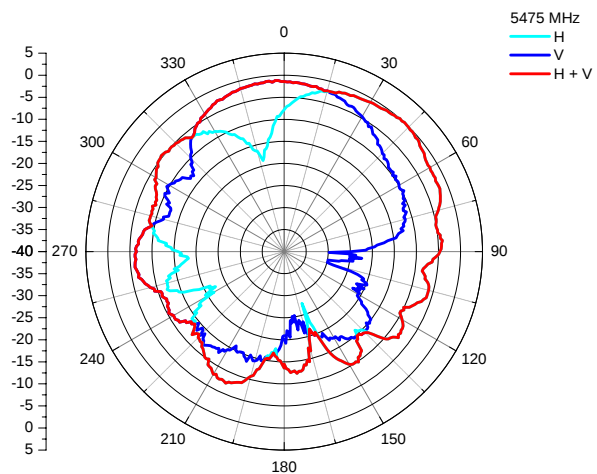
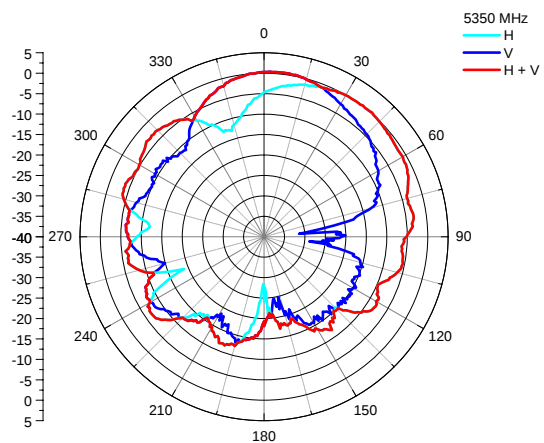
Gain

Channel (GHz)	2.40	2.45	2.50	4.9	5.15	5.25	5.35
Peak Gain (dBi)	-1.60	-2.05	-1.86	0.54	1.59	2.19	-0.43
Avg Gain (dBi)	-5.33	-6.37	-6.40	-4.36	-2.30	-1.86	-2.98

Channel (GHz)	5.47	5.6	5.725	5.875
Peak Gain (dBi)	-1.60	-2.05	-1.86	0.54
Avg Gain (dBi)	-5.33	-6.37	-6.40	-4.36

Gain Pattern





4. Relative Documents ← Material Spec. data

PCB Material

NAN YA PLASTICS CORPORATION COPPER CLAD LAMINATE QUALITY TEST REPORT

2, Chung-Yang Ind. Park,
Hsin-Kang Hsiang,
Jiayih, Taiwan

TEL: (05) 3772111 FAX: (05) 3771640
DATE: 2005/08/23
PALLET NO:

CUSTOMER: _____
ORDER NO: HC8F1HE7
LOT NO: 5704253U
MATERIAL SPEC.: NP-140TL 1/1 0.15mm 1240mm x 1080mm CFHG
IPC DESIGNATION: L21 0060 H1/H1 C/A 48.8" x 42.5" (f x g)
REQUIREMENT: IPC-4101A
SPECIFICATION SHEET: IPC-4101A / 21
GLASS FIBER SOURCE: NAN YA

NAN YA PLASTICS
COPPER CLAD LAMINATE
QUALITY ASSURANCE

CHARACTERISTICS	UNIT	CONDITIONING	SPECIFICATION	RESULTS
VISUALS(SUB-/SURFACE)	-	IPC-4101A	A	OK
METAL THICKNESS	μm	IPC-4101A	Q: 8.1-9.9/1; U: 30.9-37.7/0; 2: 61.4-75.5 T: 10.8-13.2/H: 15.5-18.9/R: 46.4-56.7 P: 77.2-94.4/3; 92.7-113.3/4; 123.3-150.7 ≤ 5.4 ≤ 0.50mm 10 ⁻⁴ ↑ ≥ 0.50mm -----	32.6 4.46 7.0E6
DIELECTRIC CONSTANT(1MHZ)		C 24/23/50	10 ⁻³ ↑	5.9E5
SURFACE RESISTANCE	MΩ	C 96/35/90	≤ 0.50mm 10 ⁻⁶ ↑ ≥ 0.50mm -----	5.4E9
SURFACE RESISTIVITY	MΩ	E 24/125	10 ⁻³ ↑	3.6E5
VOLUME RESISTANCE	MΩ-cm	C 96/35/90	0.035 ↓ (CFRD - CFMD: 0.020 ↓)	.025
VOLUME RESISTIVITY	MΩ-cm	E 24/125	60 ↑ (CFRS - CRMS: 90 ↑)	122
DISSIPATION FACTOR(1MHZ)		C 24/23/50	≤ 1.2mm CLASS C/M > 1.2mm CLASS B/L	OK
ARC-RESISTANCE	sec	D48/50+D1/2 /23	NO BLISTER DELAMINATION	OK
THICKNESS	m/m	A	Q - Toz: 3.0 ↑ Hoz: 4.5 ↑ 1 - U - V - Roz: 6.0 ↑ 2 - O - Poz: 8.0 ↑ 3 - 4oz 9.0 ↑	8.12
THERMAL STRESS		288°C x 10sec	140±5	141.1
PEEL STRENGTH	lb/in	AFTER THERMAL STRESS	94-V0 94-V0	OK
TG GLASS TRANSITION TEMP	°C	E-2/105		
FLAMMABILITY	sec	C 24/23/50 E 24/125		

THIS IS TO CERTIFY THAT THE MATERIAL BEING FURNISHED TO YOU MEETS THE IPC-4101A - RoHS AND SS-00259.
THE RESULTS OF THIS QUALITY TEST REPORT IS PASS.

APPROVED BY :

N. C. Cheng

**Test Report**

No. SH304946/CHEM

Date: 6.17.2003

Page 1 of 1

SUMITOMO ELECTRIC INTERCONNECT PRODUCTS (SUZHOU) LTD
NO. 232 JINFENG ROAD SND SUZHOU JIANGSU CHINA

The following sample(s) was/were submitted and identified on behalf of the applicant as:

Sample Description : 0.7DS CABLE (SES2)
Model : 0.7DS CABLE

Sample Receiving Date : June 12, 2003
Testing Period : June 12 to June 17, 2003

Test Requested : 1) To determine Cadmium Content on the submitted sample.
2) To determine Lead Content on the submitted sample.

Test Method : 1) With reference to BS EN 1122:2001, Method B.
Analysis was performed by Inductively Coupled Argon Plasma - Atomic Emission Spectrometry (ICP-AES).
2) With reference to US EPA Method 3050B.
Analysis was performed by Inductively Coupled Argon Plasma - Atomic Emission Spectrometry (ICP-AES).

Test Results	:	<u>Element</u>	<u>A</u>
		Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.

(Result shown is of the total weight of sample)

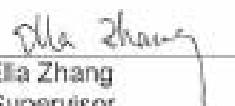
Sample Description:

A. Grey plastic wire

Note : ppm = mg/kg
N.D. = not detected (Detection limit = <2ppm)

*** End of Report ***

Signed for and on behalf of
SGS-CSTC Chemical Laboratory


Ella Zhang
Supervisor

DOCUMENT CLASSIFICATION	TITLE	No.
Technical Report	MHF,MHFⅡ 環境負荷化学物質 調査報告 Investigation report of Chemical substance with Environmental Impact	IER-001-01464

1. 目的【Purpose】

御社よりお問い合わせのありました弊社コネクタ MHF、MHFⅡにおける
環境負荷化学物質調査について御報告致します。

This is the survey report for the evaluation of environmental load chemistry substance in
MHF, MHFⅡ connector.

2. 製品【Product】

- ・ MHF PLUG Vertical (Ground Contact : gold plating) ・ ・ ・ P/N 20278-1*1R-**
- ・ MHF PLUG Vertical (Ground Contact : gold plating) ・ ・ ・ P/N 20351-1*1R-**
- ・ MHF PLUG Vertical (Ground Contact : silver plating) ・ ・ ・ P/N 20308-1*1R-**
- ・ MHF RECE. Vertical (Ground Contact : gold plating) ・ ・ ・ P/N 20279-001E-01
- ・ MHF RECE. Vertical (Ground Contact : silver plating) ・ ・ ・ P/N 20314-001E-01
- ・ MHFⅡ PLUG Vertical (Ground Contact : gold plating) ・ ・ ・ P/N 20311-0*1R-**
- ・ MHFⅡ PLUG Vertical (Ground Contact : silver plating) ・ ・ ・ P/N 20312-0*1R-**

3. 調査結果【Investigation result】

Material	Cr	Cd	Hg	Pb	PBB	PBBDE
Connector	N/A	N/A	N/A	N/A	N/A	N/A
Packings/label	N/A	N/A	N/A	N/A	N/A	N/A