

81002FF-01-S

S E R V I C E N O T E

Supersedes:
none

81002FF

Serial Numbers: n/a all 81002FF integrating spheres are effected, not serialized

POSSIBLE TEMPERATURE HAZARD

WARNING

Potential temperature related safety issue on 81002FF Integrating Sphere

To Be Performed By: Customer

Parts Required:	Description :	Qty.
P/N 81002-68705	Heat sink kit	1

Kit includes all parts (heat sink, rubber ring to protect screws of sphere, instruction sheet) to operate sphere up to 37 dBm. No additional part necessary.

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
SAFETY			
ACTION CATEGORY:		STANDARDS:	
<input type="checkbox"/> ON SPECIFIED FAILURE <input checked="" type="checkbox"/> AGREEABLE TIME		LABOR: 0.0 Hours	
LOCATION CATEGORY:		SERVICE INVENTORY:	USED PARTS:
<input checked="" type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input type="checkbox"/> SERVICE CENTER		<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	ALWAYS	AGILENT RESPONSIBLE UNTIL: end of support date of 81002 FF	
AUTHOR: U.S. PRODUCT LINE: 3E			
ADDITIONAL INFORMATION:			

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December 11, 2001~~December 11, 2001~~~~December 10, 2001~~

Situation:

There is a potential temperature problem with the connector adapter and patchcord connector which need to be attached to the Agilent 81002FF Integrating Sphere during power measurement. In case of continuous operation above 34 dBm (2.51 W), the metallic parts of the connector and adapter may heat up to a temperature exceeding the temperature limit specified by the safety standard IEC 61010-1. The 81000FF is specified up to 40 dBm (10 W) typically. IEC 61010-1 limits the maximum surface temperature of metallic parts to 55 °C at an ambient temperature of 40 °C (this corresponds to an allowable temperature increase of 15 K). New tests showed that the temperature increase of the adapters and connectors can exceed 15 K if continuously operated beyond 34 dBm. The maximum temperature increase at 40 dBm is 55 K. Exposing the 81002FF for 5 s maximum followed by 30 s minimum cooling time ensures that the limit of IEC 61010-1 is not exceeded even if operated up to 40 dBm, due to the reduction of average power. Power measurements up to 40 dBm average are still possible within specifications and do not cause any functional damage to the 81002FF. However, Agilent Technologies Deutschland GmbH assumes no responsibility in case of operation above 34 dBm and will not be liable for any damages in this case. Operations above 34 dBm are in all cases, including the cases mentioned above, at the risk of the operator.

Solution/Action:

To reduce the risk, Agilent Technologies Deutschland GmbH offers an add-on heat sink free of charge for the customer. This heat sink will allow continuous operation up to 37 dBm within the IEC limits. The heat sink is available in **January 2002**.