



B6141 617

INSTRUCTIONS FOR CALIBRATION KIT
TRL-3004A, ICM P/N: A0105088A, Rev. 1.0
25 mil alumina microstrip, 660 mil THRU length

This Calibration Kit contains all the necessary standards for:

- A) TRL - Calibration on HP8510, DC - 26.5 GHz.
- B) TRL - Calibration on HP8720/22, DC - 26.5 GHz.
- C) TRL - Calibration on HP8753, DC - 6 GHz.

For TRL Calibration use the standards in the following sequence:

SHORT Standard
MATCH Standard
LINE 1 Standard
LINE 2 Standard
THRU Standard

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TRL - STANDARD COEFFICIENT
TRL-3004A ICMP/N A0105088A Rev.10
FOR HP 8510

Filename: 05088A

STANDARD		C0	C1	C2	C3	FIXED OR	TERMINAL	OFFSET			FREQUENCY (GHz)		COAX OR	STANDARD
No.	Type	$\times 10^{-15}F$	$\times 10^{-27}F/Hz$	$\times 10^{-36}F/Hz^2$	$\times 10^{-45}F/Hz^3$	SLIDING	IMPEDANCE	DELAY	Z ₀	LOSS	LOWER	UPPER	WAVEGUIDE	LABEL
							Ω	ps	Ω	G \dot{U} /s				
13														
14	DELAY					FIXED		0	50	0	0	26.51	COAX	THRU
15	DELAY					FIXED		1	50	0	0	2.01	COAX	MATCH
16	DELAY					FIXED		26	50	0	1.99	15.9	COAX	LINE 1
17	DELAY					FIXED		18	50	0	5.99	26.51	COAX	LINE 2
18	SHORT					FIXED		-77	50	0	0	26.51	COAX	SHORT
19														
20														
TRL-Option:		Cal Zo: Line Zo												
		Set Ref: THRU												

TRL STANDARD CLASS ASSIGNMENTS

TRL-3004A, ICM P/N: A01 05088A, Rev. 1.0
FOR HP 8510

	A	B	C	D	E	F	G	Standard Class Label
S ₁₁ ^A								
S ₁₁ ^B								
S ₁₁ ^C								
S ₂₂ ^A								
S ₂₂ ^B								
S ₂₂ ^C								
Forward Transmission								
Reverse Transmission								
Forward Match								
Reverse Match								
Forward Isolation ¹								
Reverse Isolation								
Frequency Response								
TRL Thru	14							TRL Thru
TRL Reflect	18							TRL Short
TRL Line	15	16	17					TRL LINE/MATCH
Adapter								
TRL-Option	CAL Z ₀ :	LINE Z ₀ :						
	Set Ref:	THRU						

1. Forward Isolation Standard is also used for Isolation part of Response and Isolation calibration

TRL* - STANDARD COEFFICIENT
TRL-3004A, ICM P/N: A0105088A, Rev. 1.0
for H P8720 with TRL*

		A	B	C	D	E	F	G	Standard Class Label
TRL THRU		4							TRL THRU
TRL REFLECT		1							TRL SHORT
TRL LINE/MATCH		5	6	7					TRL LINE/MATCH

**TRL* STANDARD CLASS ASSIGNMENTS
AND STANDARD DEFINITIONS TABLE**

STANDARD		C0 x10 ⁻¹⁵ F	C1 x10 ⁻²⁷ F/Hz	C2 x10 ⁻³⁶ F/Hz ²	C3 x10 ⁻⁴⁵ F/Hz ³	FIXED OR SLIDING	TERMINAL IMPEDANCE	OFFSET			FREQUENCY (GHz)		COAX OR WAVEGUIDE	STANDARD LABEL
No.	Type							DELAY	Z ₀	LOSS	LOWER	UPPER		
							Ω	ps	Ω	GÙ/s				
1	SHORT					FIXED		-77	50	0	0	26.51	COAX	SHORT
2														
3														
4	THRU					FIXED		0	50	0	0	26.51	COAX	THRU
5	DELAY					FIXED		1	50	0	0	2.01	COAX	LOAD
6	DELAY					FIXED		26	50	0	1.99	15.9	COAX	LINE 1
7	DELAY					FIXED		18	50	0	5.99	26.51	COAX	LINE 2
TRL-Option:		Cal Zo: Line Zo												
		Set Ref: THRU												

Note: For installation of the calibration coefficients on HP8720 please use : "**Calibration Coefficient Installation for ICM TRL-Calibration Kits on HP8720.**"

For TRL*-Calibration on HP8720 please use: "**ICM TRL-Calibration Procedure for HP8720D**".

These procedures can be found on our website: www.icmicrowave.com under "Application Notes".

**TRL* - STANDARD COEFFICIENT TRL-3004A, ICM P/N: A0105088A,
Rev. 1.0 for HP8753 with TRL**

	A	B	C	D	E	F	G	Standard Class Label
TRL THRU	4							TRL THRU
TRL REFLECT	1							TRL SHORT
TRL LINE/MATCH	5	6						TRL LINE/MATCH

**TRL* STANDARD CLASS ASSIGNMENTS AND
STANDARD DEFINITIONS TABLE**

STANDARD		C0 x10 ⁻¹⁵ F	C1 x10 ⁻²⁷ F/Hz	C2 x10 ⁻³⁶ F/Hz ²	C3 x10 ⁻⁴⁵ F/Hz ³	FIXED OR SLIDING	TERMINAL IMPEDANCE	OFFSET			FREQUENCY (GHz)		COAX OR WAVEGUID	STANDARD LABEL
No.	Type							DELAY	Z ₀	LOSS	LOWER	UPPER		
							Ω	ps	Ω	GU/s				
1	SHORT					FIXED		-77	50	0	0	6.1	COAX	SHORT
2														
3														
4	THRU					FIXED		0	50	0	0	6.1	COAX	THRU
5	DELAY					FIXED		1	50	0	0	2.01	COAX	LOAD

<- Not Used

6	DELAY					FIXED		26	50	0	1.99	6.1	COAX	LINE 1
7	DELAY					FIXED								LINE 2
TRL-Option:		Cal Zo: Line Zo												
		Set Ref: THRU												

Note: For installation of the calibration coefficients on HP8753 please use : "**Calibration Coefficient Installation for ICM TRL-Calibration Kits on HP8753.**"

These procedures can be found on our website: www.icmicrowave.com under 'Application Notes'.

File Name: B6141617 for TRL-3004A, A0105088A, Updated 3/14/2008