

Standard Definitions (TRL Calibration)
Agilent 8720 Series Using Maury X7005S() Software, WR90 (8.2 to 12.4 GHz)

System Z_0 : 1.0 Ω
Disk File Name: X7005SC
Calibration Kit Label: X7005SC

STANDARD ¹		C0 x10 ⁻¹⁵ F	C1 x10 ⁻²⁷ F/Hz	C2 x10 ⁻³⁶ F/Hz ²	C3 x10 ⁻⁴⁵ F/Hz ³	FIXED ² or SLIDING or OFFSET	TERMINAL ³ IMPEDANCE Ω	OFFSET			FREQ (GHz)		COAX or W/G	STND LABEL
NO.	TYPE	L0 x10 ⁻¹² H	L1 x10 ⁻²⁴ H/Hz	L2 x10 ⁻³³ H/Hz ²	L3 x10 ⁻⁴² H/Hz ³			DELAY ps	Z_0 ⁴ Ω	LOSS ⁵ G Ω /s	MIN ⁶	MAX		
1	SHORT					FIXED		0.0	1.0	0.0	6.557	999.0	W/G	X344A
2	SHORT					FIXED		16.111	1.0	0.0	6.557	999.0	W/G	X340B1
3	SHORT					FIXED		48.300	1.0	0.0	6.557	999.0	W/G	X340B3
4	LOAD					FIXED		0.0	1.0	0.0	6.557	999.0	W/G	FIXED ⁷
5	LOAD					SLIDING		0.0	1.0	0.0	6.557	999.0	W/G	SLIDING ⁸
6	THRU					FIXED		0.0	1.0	0.0	6.557	999.0	W/G	THRU ⁹
7														
8														

- 1 Open, short, load, delay/thru, or arbitrary impedance.
- 2 Load or arbitrary impedance only.
- 3 Arbitrary impedance only, device terminating impedance (defaults: short = 0 Ω , open = ∞ Ω , load = 50 Ω).
- 4 Z_0 normalized.
- 5 Skin loss factor, normalized at 1 GHz.
- 6 For waveguide, minimum frequency is same as F_{co} .
- 7 Model X301A.
- 8 Model X313 or X314.
- 9 Test ports connected directly.

Table 5

Standard Class Assignments: Agilent 8720 Series
 Maury Software: X7005S(), WR90 Waveguide, 8.2 to 12.4 GHz
 Cal Kit Label: X7005SC
 Disk File Name: X7005SC

Class	A	B	C	D	E	F	G	Standard Class Label
S ₁₁ A	2							X340B1
S ₁₁ B	3							X340B3
S ₁₁ C	4	5						LOADS
S ₂₂ A	2							X340B1
S ₂₂ B	3							X340B3
S ₂₂ C	4	5						LOADS
Forward Transmission	6							THRU
Reverse Transmission	6							THRU
Forward Match	6							THRU
Reverse Match	6							THRU
Response	1	6						RESPONSE
Response & Isolation	1	4	6					RESPONSE
TRL Thru								THRU
TRL Reflect								SHORT
TRL Line								SHIM
Adapter								UNDEFINED
TRL Option	Cal Zo: _____ System Zo _____ Line Zo							
	Set Ref: _____ Thru _____ Reflect							
	Lowband Frequency: _____							

Table 6

Standard Definitions Agilent PNA Series Using Maury X7005S17 Software, WR90 Waveguide, (8.2 to 12.4 GHz)

DISK FILE NAMES: X7005S sliding.ckt and X7005S fixed.ckt		SYSTEM Z ₀ : 1.0		CALIBRATION KIT NAME: X7005S Sliding and X7005S Fixed										
STANDARD ^a		C0 X10 ⁻¹⁵ F	C1 X10 ⁻²⁷ F/Hz	C2 X10 ⁻³⁶ F/Hz ²	C3 X10 ⁻⁴⁵ F/Hz ³	FIXED ^b OR SLIDING OR OFFSET	TERMINAL ^c IMPEDANCE Ω	OFFSET		FREQUENCY (GHz)		COAX OR W/G	STANDARD LABEL	
ID NO.	TYPE	L0 X10 ⁻¹² H	L1 X10 ⁻²⁴ H/Hz	L2 X10 ⁻³³ H/Hz ²	L3 X10 ⁻⁴² H/Hz ³			DELAY ps	Z ₀ Ω	LOSS ^d GΩ/s	MIN ^e	MAX		
1	SHORT	0.0	0.0	0.0	0.0			0.0	1.0	0.0	6.557	999.0	W/G	X344A
2	SHORT	0.0	0.0	0.0	0.0			16.111	1.0	0.0	6.557	999.0	W/G	X340B1
3	SHORT	0.0	0.0	0.0	0.0			48.300	1.0	0.0	6.557	999.0	W/G	X340B3
9	LOAD							0.0	1.0	0.0	6.557	999.0	W/G	FIXED ^f
10	LOAD							0.0	1.0	0.0	6.557	999.0	W/G	SLIDING ^h
11	THRU							0.0	1.0	0.0	6.557	999.0	W/G	THRU ^g

- a Open, short, load, delay/thru, or arbitrary impedance.
- b Load or arbitrary impedance only.
- c Arbitrary impedance only, device terminating impedance (defaults: short = 0 Ω, open = ∞ Ω, load = 50 Ω).
- d Skin loss factor, normalized at 1 GHz.
- e For waveguide, minimum frequency is same as F_∞.
- f Fixed terminations, model X301() series.
- g Test ports connected directly.
- h Sliding terminations, model X313() or X314() series.

Table 7. PNA Series Standard Definitions