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3 Replaceable Parts

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Introduction

In this chapter, the replaceable parts used for on-site repair are listed. How to order the parts is also described.

This chapter lists the replaceable parts for followings.

- Replaceable VXI modules and equipment
- Cables and connectors

In this chapter, replaceable parts for the following instruments are not described, since these instruments are repaired at service center.

E8401A	VXI mainframe (except for 0950-3276 or E8401-69276 Power Supply)
54845A/B	Infinium Oscilloscope (E5023A Option 103)
E4402B	Spectrum Analyzer (E5023A Option 300)

NOTE For spinstand related parts, see spinstand service manual.

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Ordering Information

To order a part listed in the replaceable parts table, quote the Agilent part number (with a check digit), indicate the quantity required, and address the order to the nearest Agilent office. The check digit will ensure accurate and timely processing of the order.

To order a part not listed in the replaceable parts table, include the instrument model number, the description and function of the part, and the quantity of parts required. Address the order to the nearest Agilent office.

Direct Mail Order System

Within the USA, Agilent can supply parts through a direct mail order system. Advantages of using this system are:

1. Direct ordering and shipment from the Agilent Parts Center.
2. No maximum or minimum on any mail order (there is a minimum order amount for parts ordered through a local Agilent office when the orders require billing and invoicing).
3. Prepaid transportation (there is a small handling charge for each order).
4. No invoices.

To provide these advantages, a check or money order must accompany each order.

Mail order forms and specific ordering information are available through your local Agilent office, addresses and phone numbers are located at the back of this manual.

Replaceable Parts List

Replaceable parts tables list the following information for each part.

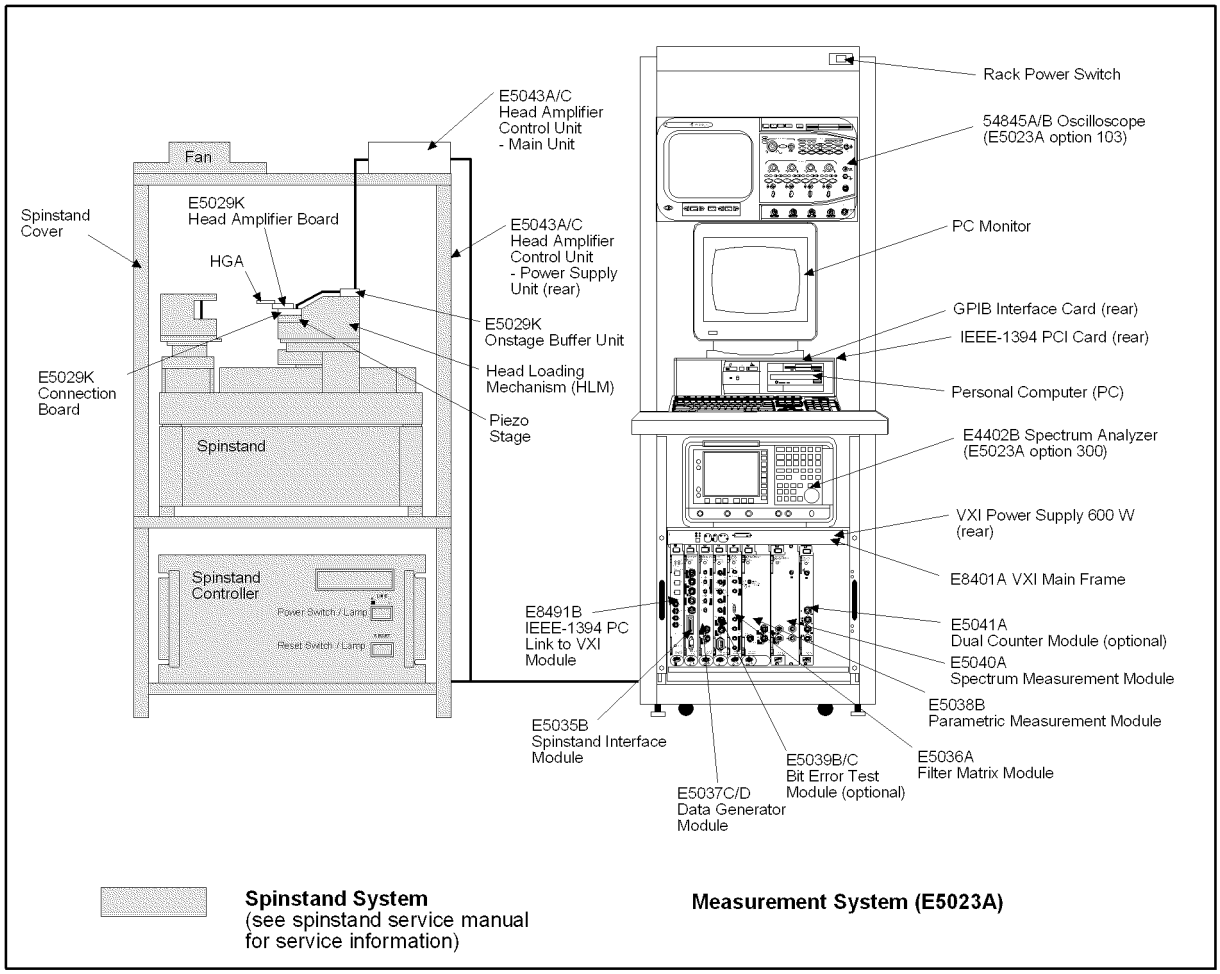
1. Agilent part number.
2. Part number check digit (CD).
3. Part quantity as shown in the corresponding figure. There may or may not be more of the same part located elsewhere in the instrument.
4. Part description, using abbreviations.
5. A manufacturer of the part, if available directly.
6. The manufacturer's part number, if available directly.

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Replaceable Parts

Replaceable VXI Modules and Equipment

Figure 3-1 Replaceable VXI Modules and Equipment



e5023ase0101

Table 3-1 VXI Modules

	Part Number	CD	Qty.	Description
1	E8491-66202		1	E8491B IEEE-1394 PC Link to VXI Module
2	E5035-65102		1	E5035B Spinstand Interface Module
	E5035-69102*1		1	E5035B Spinstand Interface Module (exchange)

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Table 3-1 VXI Modules

	Part Number	CD	Qty.	Description
3	E5037-65004		1	E5037C 1.5 Gbps Data Generator Module
	E5037-69004*1		1	E5037C 1.5 Gbps Data Generator Module (exchange)
	E5037-65005		1	E5037D 2.6 Gbps Data Generator Module
	E5037-69005*1		1	E5037D 2.6 Gbps Data Generator Module (exchange)
4	E5039-65011		1	E5039B Bit Error Test Module
	E5039-69011*1		1	E5039B Bit Error Test Module (exchange)
	E5039-65021		1	E5039C Bit Error Test Module
	E5039-69021*1		1	E5039C Bit Error Test Module (exchange)
5	E5036-65001		1	E5036A Filter Matrix Module
	E5036-69001*1		1	E5036A Filter Matrix Module (exchange)
6	E5038-65002		1	E5038B Parametric Measurement Module
	E5038-69002*1		1	E5038B Parametric Measurement Module (exchange)
7	E5040-65001		1	E5040A Spectrum Analyzer Module
	E5040-69001*1		1	E5040A Spectrum Analyzer Module (exchange)
8	E5041-65001		1	E5041A Dual Counter Module
	E5041-69001*1		1	E5041A Dual Counter Module (exchange)

*1. Rebuilt-Exchange assembly. Defective parts must be returned for credit. Parts required for spare stock must be ordered by the new model number.

Table 3-2 Other Equipment

	Part Number	CD	Qty.	Description
9	0950-3276		1	VXI Power Supply 600W
	E8401-69276*1		1	VXI Power Supply 600W (exchange)
10	E5022-61011		1	Dell Personal Computer
11	E5022-61009		1	17 inch CRT Monitor
	E5022-61010		1	15 inch LCD Monitor
12	82350B		1	GPIB Interface Card
13	E8491-66503		1	IEEE 1394 PCI Card

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Table 3-2 Other Equipment

	Part Number	CD	Qty.	Description
14	E5043-65001		1	E5043A/C Head Amplifier Control Unit - Power Supply Unit
	E5013-01205*2		1	Angle for E5043A/C Power Supply Unit used with E5013A
15	E5043-65002		1	E5043A Head Amplifier Control Unit - Main Unit
	E5043-69002*1		1	E5043A Head Amplifier Control Unit - Main Unit (exchange)
	E5013-01201*3		1	Angle-1 for E5043A/B/C Main Unit used with E5013A
	E5013-01202*3		1	Angle-2 for E5043A/B/C Main Unit used with E5013A
	E5043-65004		1	E5043C Head Amplifier Control Unit - Main Unit
	E5043-69004*1		1	E5043C Head Amplifier Control Unit - Main Unit (exchange)
	3050-0893		4	Washer for E5043C Main Unit used with E5010C
16	E5023-65513		1	E5029K Opt. 004 Onstage Buffer Board
	E5023-66514		1	E5029K Opt. 004 Connection Board
	E5023-66506		1	E5029K Opt. 002 Onstage Buffer Board
	E5023-66507		1	E5029K Opt. 002 Connection Board

*1. Rebuilt-Exchange assembly. Defective parts must be returned for credit. Parts required for spare stock must be ordered by the new model number.
*2. For the E5010C spinstand, P/N E5012-04425 should be used.
*3. For the E5010C spinstand, P/N E5043-01203 (2 pieces for an E5043A Main Unit) should be used.

Table 3-3 Filter Boards for the E5036A Filter Matrix Module

	Part Number	CD	Qty.	Description
1	E5036-66531	5	1	0.5 - 2.0 MHz Band Pass Filter Board
2	E5036-66532	6	1	3.0 - 80.0 MHz Band Pass Filter Board
3	E5036-66571	3	1	100 MHz Low Pass Filter Board
4	E5036-66572	4	1	200 MHz Low Pass Filter Board
5	E5036-66573	5	1	300 MHz Low Pass Filter Board
6	E5036-66574	6	1	400 MHz Low Pass Filter Board
7	E5036-66575	7	1	75 MHz Low Pass Filter Board
8	E5036-66576	8	1	150 MHz Low Pass Filter Board
9	E5036-66577	9	1	250 MHz Low Pass Filter Board

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Table 3-3 Filter Boards for the E5036A Filter Matrix Module

	Part Number	CD	Qty.	Description
10	E5036-66578	0	1	15 MHz Low Pass Filter Board
11	E5036-66579	1	1	30 MHz Low Pass Filter Board
12	E5036-66598	4	1	Blank Filter Board (for user design)
13	E5036-66599	5	1	50 ohm Thru Filter Board

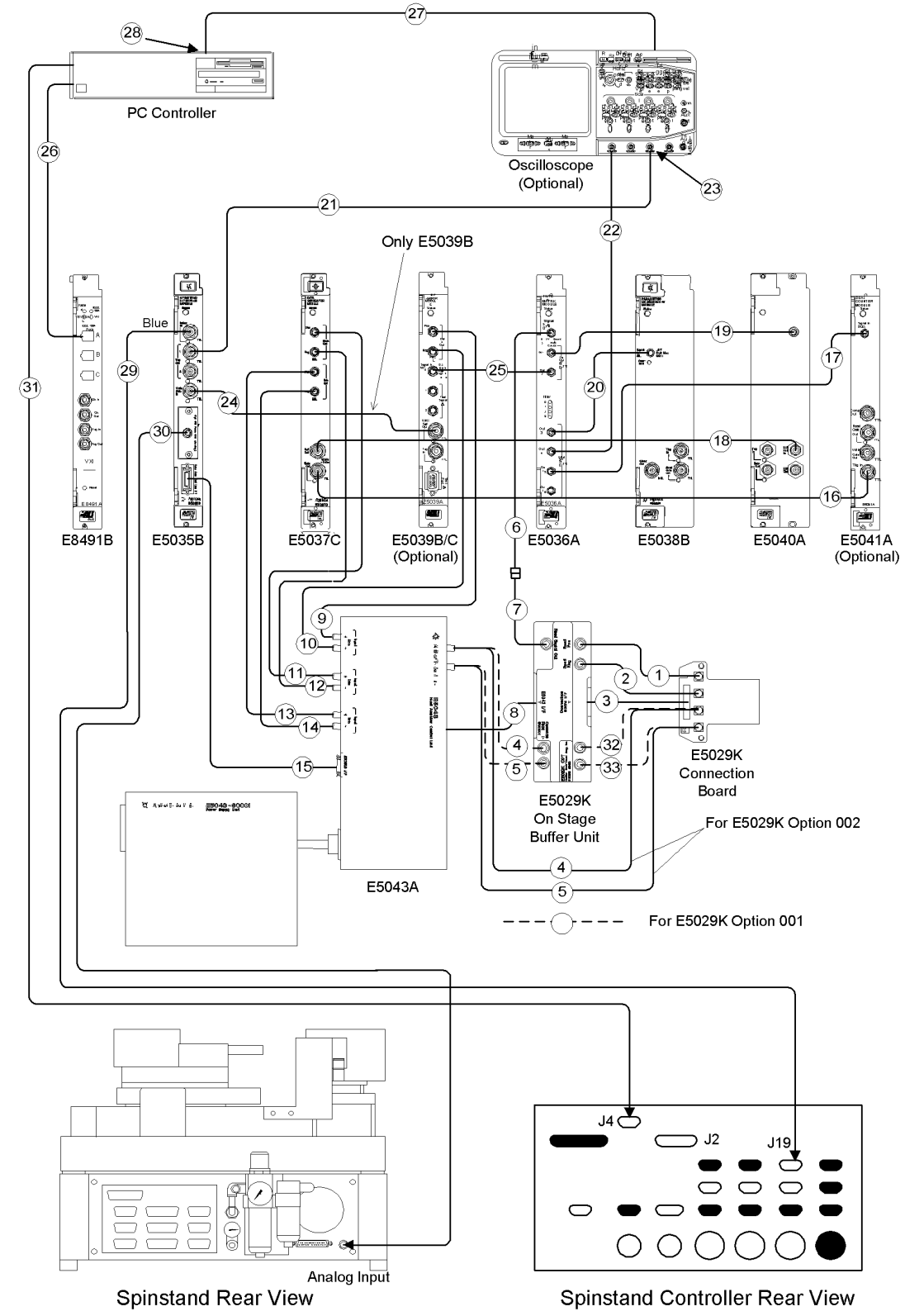
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Cables and Connectors of E5023A Option 415 (1.5 Gbps)(without opt. 300)

Refer to the “Cable Connection” on page 106 for more details.

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Figure 3-2 Cable Connection of E5023A Option 415 (1.5 Gbps) (without opt. 300)



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Table 3-4 Cable Connection of E5023A Option 415 (1.5 Gbps) (without opt. 300)

No.	Description	Connection		Part Number
1	SMA(m)-SMA(m) Cable	E5029K Connection Board “R+”	E5029K Onstage Buffer Unit “R+”	E5029-61601
2	SMA(m)-SMA(m) Cable	E5029K Connection Board “R–”	E5029K Onstage Buffer Unit “R–”	E5029-61602
3	FFC Cable	E5029K Connection Board “Connection Board I/F”	E5029K Connection Board “Cable”	E5029-61608
4	SMA(m)-SMA(m) Cable	E5043A “OUT D+”	E5029K Connection Board (Onstage Buffer Unit[*1]) “W+”	E5043-61641
5	SMA(m)-SMA(m) Cable	E5043A “OUT D–”	E5029K Connection Board (Onstage Buffer Unit[*1]) “W–”	E5043-61642
6	SMA(m)-SMA(m) Cable	E5036A “Sig In”	Inter Connector Plate “Junction Read Sig”	E5023-61607
7	SMA(m)-SMA(m) Cable	Inter Connector Plate “Junction Read Sig”	E5029K “Read Sig Out”	E5023-61608
8	50P Halfpitch Flat Cable	E5029K Onstage Buffer Unit	E5043A Head Amplifier Control Unit (Main Unit)	E5043-61613
9	SMA(m)-SMA(m) Cable	E5039B/C “Data Out Pos”	E5043A “Input 2 Data+”	E5039-61606
10	SMA(m)-SMA(m) Cable	E5039B/C “Data Out Neg”	E5043A “Input 2 Data–”	E5039-61607
11	SMA(m)-SMA(m) Cable	E5037C “Clk Out Pos”	E5043A “Input Clock+”	E5023-61601
12	SMA(m)-SMA(m) Cable	E5037C “Clk Out Neg”	E5043A “Input Clock–”	E5023-61602
13	SMA(m)-SMA(m) Cable	E5037C “Data Out Pos”	E5043A “Input 1 Data+”	E5023-61603
14	SMA(m)-SMA(m) Cable	E5037C “Data Out Neg”	E5043A “Input 1 Data–”	E5023-61604
15	MDR-MDR Cable	E5035B “Head Amp Ctrl Unit I/F”	E5043A “E5035B I/F”	E5023-61605
16	BNC(m)-BNC(m) Cable	E5037C “Gate Out”	E5041A “Trig In”	E5041-61602
17	SMA(m)-SMA(m) Cable	E5036A “Filtrd Out 5”	E5041A “Signal In 50 Ω”	E5041-61603
18	BNC(m)-BNC(m) Cable	E5037C “Ref Out”	E5040A “Ext Ref In”	E5023-61606
19	SMA(m)-SMA(m) Cable	E5036A “Thru Out 1”	E5040A “Signal In”	E5023-61611
20	SMA(m)-SMA(m) Cable	E5036A “Filtrd Out”	E5038B “Signal In”	E5023-61610
21	BNC(m)-BNC(m) Cable	E5035B “Trig Out 1”	Oscilloscope Ch3	E5023-61613
22	SMA(m)-SMA(m) Cable	E5036A “Filtrd Out”	Oscilloscope Ch1	E5023-61612
23	SMA(f)-BNC(m) Adapter	-	-	1250-1700
24	BNC(m)-BNC(m) Cable[*2]	E5035B “WG IN”	E5039B “WG OUT”	E5039-61609
25	SMA(m)-SMA(m) Cable	E5039B/C “Signal In”	E5036A “Thru Out 2”	E5039-61608

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Table 3-4 Cable Connection of E5023A Option 415 (1.5 Gbps) (without opt. 300)

No.	Description	Connection		Part Number
26	IEEE-1394 Cable	IEEE-1394 Port on PCI Board	E8491B “Port A”	8192-8688
27	GPIB Cable, 2m	GPIB Port on PCI Board	54845A/B GPIB Port	10833B
28	GPIB Adapter Extender*3	-	-	10834A
29	BNC(m)-DSUB(f) Cable	E5035B “Index In”	Spinstand Controller “J19”	E5023-61609
30	SMA(m)-BNC(m) Cable	E5035B “Piezo Ctrl”	Spinstand “Analog Input”	E5013-61601
31	Serial Cable	PC COM1 Port	Spinstand Serial Port	E5022-61628
32*1	SMA(m)-SMA(m) Cable	E5029K Connection Board “W+”	E5029K Onstage Buffer Unit “W+”	E5029-61604
33*1	SMA(m)-SMA(m) Cable	E5029K Connection Board “W–”	E5029K Onstage Buffer Unit “W–”	E5029-61605

*1. For E5029K Option 001.
*2. For E5039B.
*3. It is not needed if the GPIB cable can be connected to the PC without this extender.

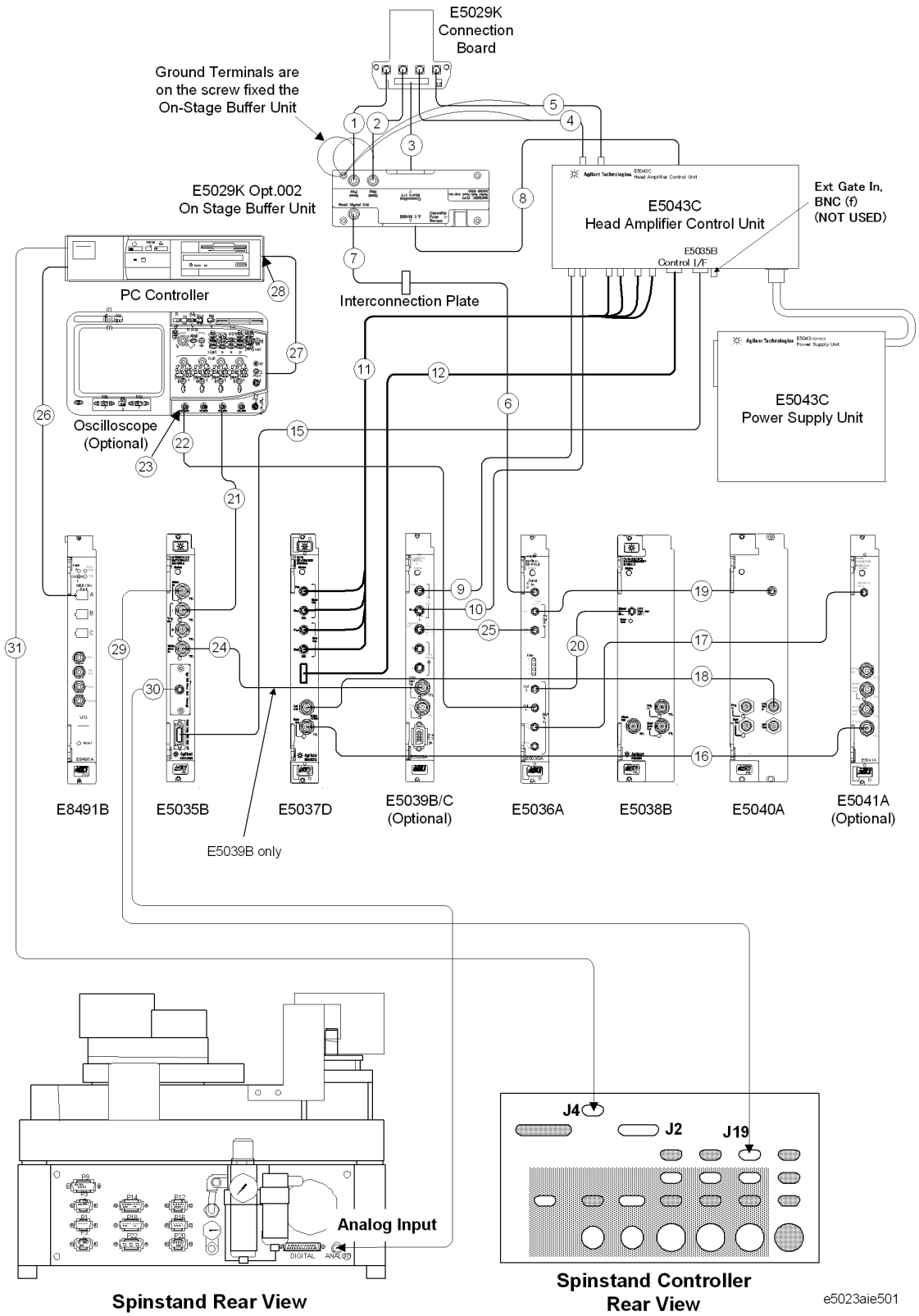
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Cables and Connectors of E5023A Option 426 (2.6 Gbps) (without opt. 300)

Refer to the “Cable Connection” on page 106 for more details.

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Figure 3-3 Cable Connection of E5023A Option 426 (2.6 Gbps) (without opt. 300)



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Table 3-5 Cable Connection of E5023A Opt. 426 (2.6 Gbps) (without opt. 300)

No.	Description	Connection		Part No.
1	SMA(m)-SMA(m) Cable	E5029K Connection Board “R+”	E5029K Onstage Buffer Unit “R+”	E5029-61601
2	SMA(m)-SMA(m) Cable	E5029K Connection Board “R-”	E5029K Onstage Buffer Unit “R-”	E5029-61602
3	Flat Cable	E5029K Connection Board “Connection Board I/F”	E5029K Connection Board “Cable ”	E5029-61608
4	SMA(m)-SMA(m) Cable	E5043C “OUT D+”	E5029K “W+”	E5043-61611
5	SMA(m)-SMA(m) Cable	E5043C “OUT D-”	E5029K “W-”	E5043-61612
6	SMA(m)-SMA(m) Cable	E5036A “Sig In”	“Junction Read Sig”	E5023-61607
7	SMA(m)-SMA(m) Cable	“Junction Read Sig”	E5029K “Read Sig Out”	E5023-61608
8	50P Halfpitch	-	-	E5043-61613
9	SMA(m)-SMA(m) Cable	E5039B/C “Data Out Pos”	E5043C “Input2 Data+”	E5039-61606
10	SMA(m)-SMA(m) Cable	E5039B/C “Data Out Neg”	E5043C “Input2 Data-”	E5039-61607
11	SMA(m) - SMA(m) Cable	E5037D “Clk Out Pos”	E5043C “Input Clock+”	E5037-61621 *1
		E5037D “Clk Out Neg”	E5043C “Input Clock-”	
		E5037D “Data Out Pos”	E5043C “Input1 Data+”	
		E5037D “Data Out Neg”	E5043C “Input1 Data-”	
12	MDR-MDR Cable	E5037D “Ctrl”	E5043C “Control”	E5043-61622
15	MDR-MDR Cable	E5035 “Head Amp Ctrl”	E5043C “E5035B I/F”	E5023-61605
16	BNC(m)-BNC(m) Cable	E5037D “Gate Out”	E5041A “Trig In”	E5041-61602
17	SMA(m)-SMA(m) Cable	E5036A “Fltrd Out 5”	E5041A “Signal In 50Ω”	E5041-61603
18	BNC(m)-BNC(m) Cable	E5037D “Ref Out”	E5040A “Ext Ref In”	E5023-61606
19	SMA(m)-SMA(m) Cable	E5036A “Thru Out”	Spectrum Ana In	E5023-61611
20	SMA(m)-SMA(m) Cable	E5036A “Filtr’d Out”	E5038B “Signal In”	E5023-61610
21	SMA(m)-SMA(m) Cable	E5035B “Trig Out 1”	Oscillo	E5023-61613
22	BNC(m)-BNC(m) Cable	E5036A “Filtr’d Out”	Oscillo Ch1	E5023-61612
23	SMA(f)-BNC(m) Adapter	-	-	1250-1700
24	BNC(m)-BNC(m) Cable	E5035B “WG IN”	E5039B/C “WG OUT”	E5039-61609
25	SMA(m)-SMA(m) Cable	E5039B/C “Signal In”	E5036A “Thru Out 2”	E5039-61608
26	IEEE-1394 Cable	IEEE-1394 Port on PCI Board	E8491B “Port A”	8192-8688
27	GPIB Cable, 2m	GPIB Port on PCI Board	54845A/B GPIB port	10833B
28	GPIB Adapter Extender	-	-	10834A

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Table 3-5 Cable Connection of E5023A Opt. 426 (2.6 Gbps) (without opt. 300)

No.	Description	Connection		Part No.
29	BNC(m)-BNC(m) Cable	E5035B “Index In”	Spinstand Index	E5023-61609
30	SMA(m)-SMB(m) Cable	E5035B “Piezo Ctrl”	PZT Ctrl Analog	E5035-61601
31	Serial Cable	PC COM1 Port	Spinstand Serial Port	E5022-61628

*1. E5037-61621 has to be used as the default 4 cables set, because these length are used in the system calibration data.

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Cables and Connectors of E5023A Option 300

Figure 3-4 Cable Connection of E5023A Option 300

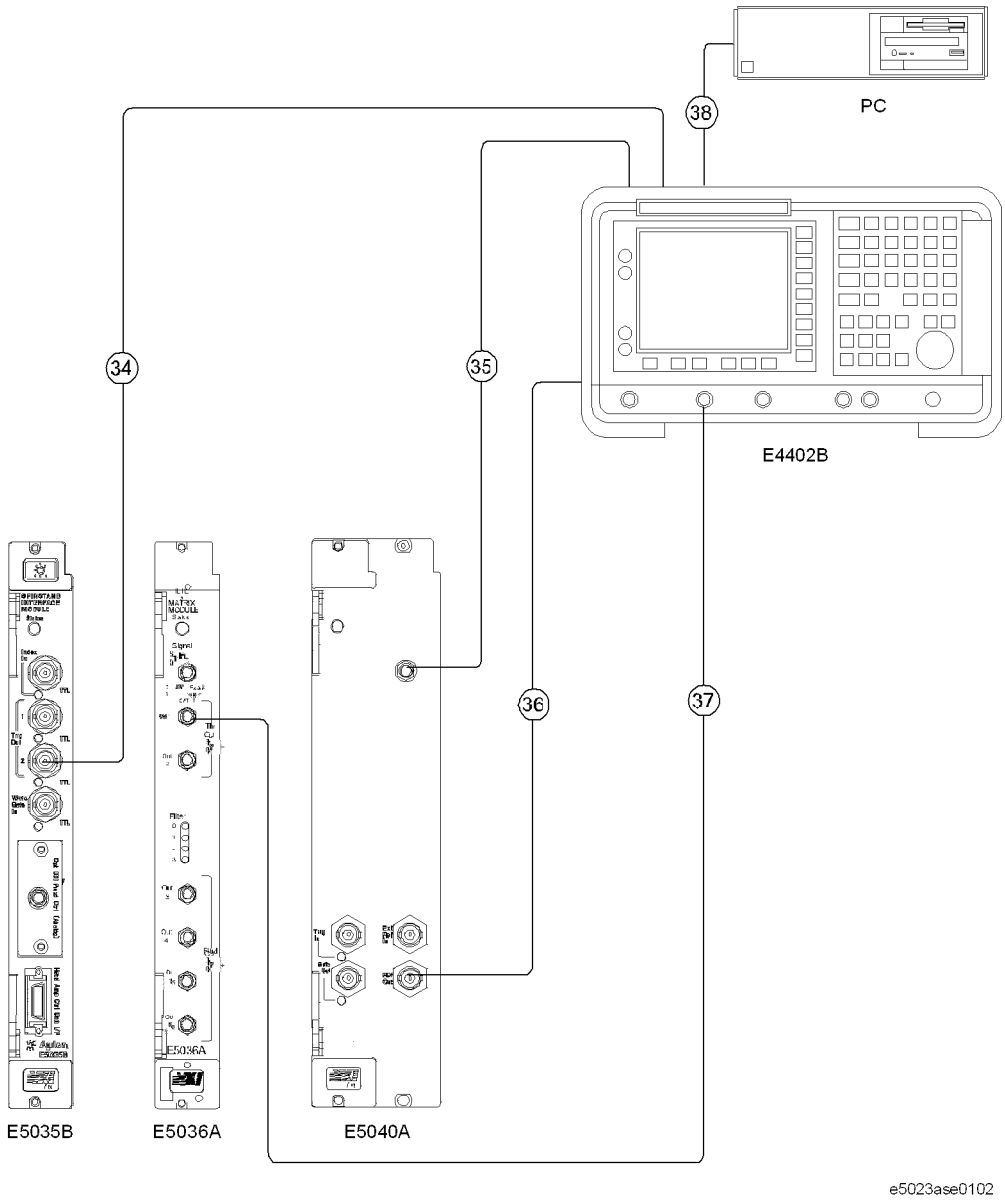


Table 3-6 Cable Connection (Option 300)

No.	Description	Connection		Part Number
34	BNC(m)-BNC(m) Cable, 2.3 m	E5035B “Trig Out 2”	E4402B “Gate Trig / Ext. Trig In”	E5023-61615
35	BNC(m)-SMA(m) Cable, 2.3 m	E5040A “Signal In”	E4402B “Aux IF Out”	E5023-61618

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Table 3-6 Cable Connection (Option 300)

No.	Description	Connection		Part Number
36	BNC(m)-BNC(m) Cable, 2.3 m	E5040A“Ref. Out”	E4402B “10 MHz Ref in”	E5023-61616
37	SMA(m)-SMA(m) Cable, 0.6 m	E5036A “Thru Out 1”	E4402B “Input”	E5023-61617
38	GPIB Cable, 2 m	GPIB Port on PCI Board	E4402B “GPIB”	10833B

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