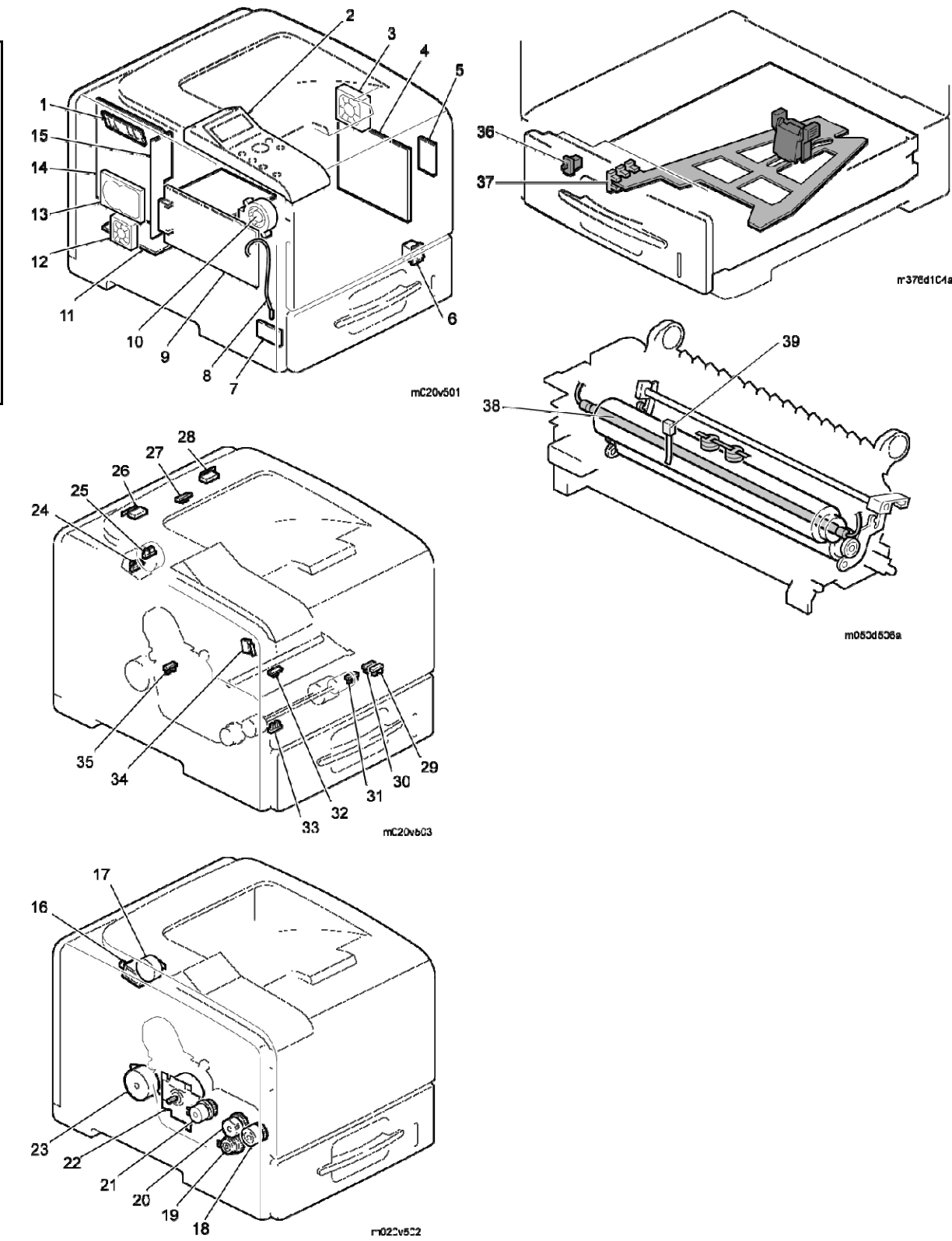


PRINTER(M020 / M021) ELECTRICAL COMPONENT LAYOUT

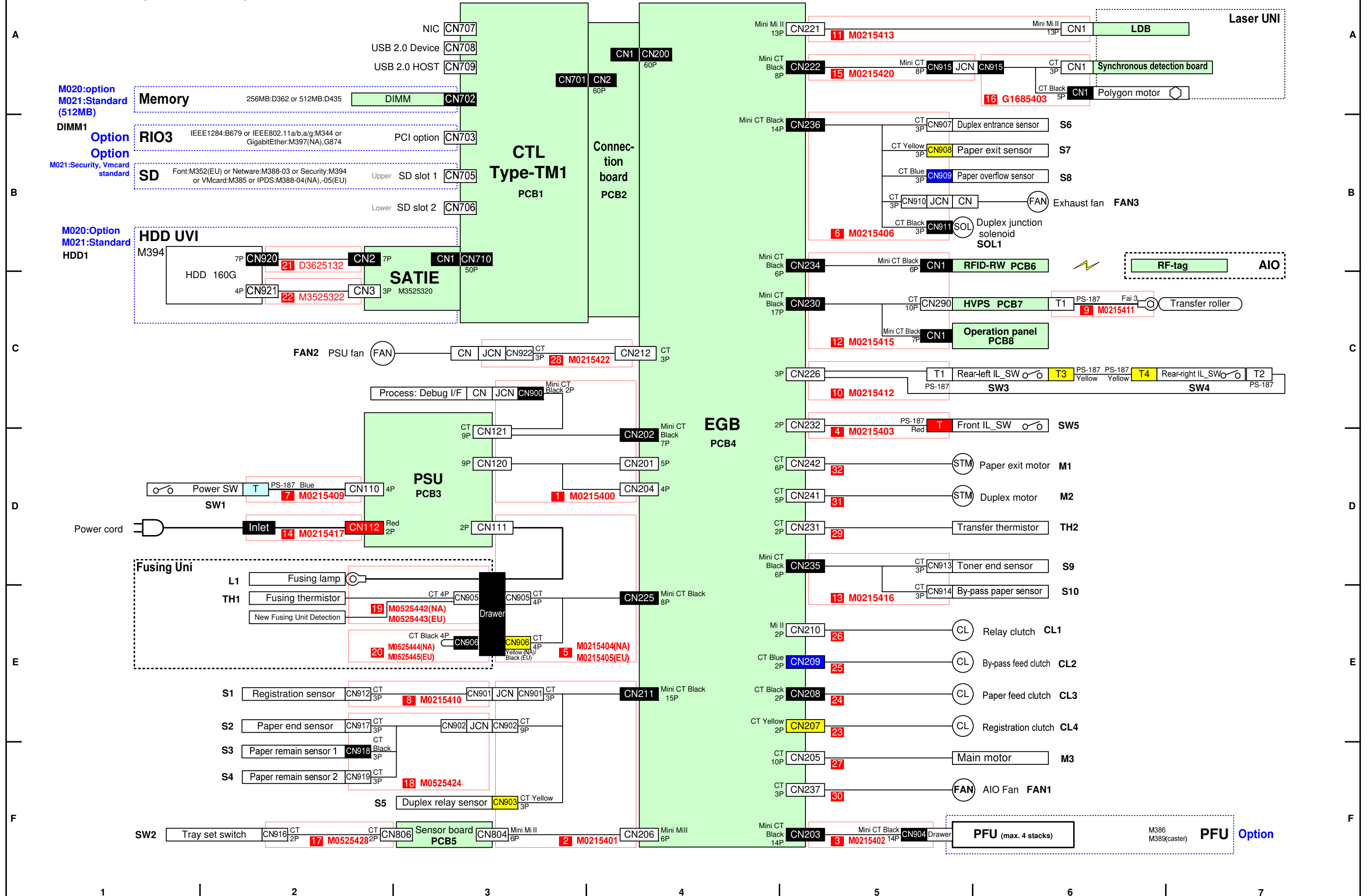
Printer (M020 / M021)

Symbol	Index No.	Description	P to P
Motors			
M1	17	Paper exit	D5-6
M2	23	Duplex	D5-6
M3	22	Main	F5-6
Magnetic Clutches			
CL1	20	Relay	E5-6
CL2	18	By-pass feed	E5-6
CL3	19	Paper feed	E5-6
CL4	21	Registration	E5-6
Switches			
SW1	6	Main	D1-2
SW2	36	Tray set	F1-2
SW3	26	Rear-left interlock	C5-6
SW4	28	Rear-right interlock	C6-7
SW5	34	Front interlock	C5-6
Sensors			
S1	32	Registration	E2
S2	31	Paper end	E2
S3	29	Paper remain 1	F2
S4	30	Paper remain 2	F2
S5	35	Duplex relay	F2-3
S6	27	Duplex entrance	B5-6
S7	24	Paper exit	B5-6
S8	25	Paper overflow	B5-6
S9	34	Toner end	D5-6
S10	33	By-pass paper	DE5-6
PCBs			
PCB1	14	Printer controller	AC3
PCB2	15	Connection board	AC4
PCB3	11	PSU (Power Supply Unit)	CD2-3
PCB4	9	Engine	AF4-5
PCB5	7, 37	Paper size detection sensor	F2-3
PCB6	5	RFID(Radio Frequency ID)	B5-6
PCB7	4	HVPS(High Voltage Power Supply)	C5-6
PCB8	2	Operation panel	C5-6
Fans			
FAN1	10	AIO	F5-6
FAN2	12	PSU	CD2-3
FAN3	3	Exhaust	B6

Symbol	Index No.	Description	P to P
Thermistor			
TH1	39	Fusing	E2
TH2	8	Transfer	D5-6
Lamp			
L1	38	Fusing	D2
Others			
SOL1	16	Duplex junction solenoid	B5-6
DIMM1	1	DDR DIMM (For M021)	A2-3
HDD1	13	Hard disk (For M021)	BC1-2



PRINTER (M020/M021) POINT TO POINT DIAGRAM



PRINTER (M020/M021) WHOLE PIN ASSIGNMENTS

Assignm ent No.	Harness #	Connectors (from)			Signals Information				Connectors (to)		
		No.	Destination	Pin #	Signal name	Direction	L	H	No.	Destination	Pin #
1	M0215400	CN120	PSU	1	+24V				CN204	EGB	1
				2	+24V						2
				3	GND						3
				4	GND						4
				5	+5V				CN201	EGB	1
				6	+5VE						2
				7	+5VE						3
				8	GND						4
				9	GND						5
		CN121	PSU	1	Debug I/F: +				CN900	Process: Debug I/F	2
				2	Debug I/F: -						1
				3	+24VS				CN202	EGB	7
				4	GND						6
				5	Fusing relay: Trigger		OFF	ON			5
				6	Zero-cross	->	Detect	Not-detect			4
				7	Fusing lamp: Trigger	<-	OFF	ON			3
				8	Energy save signal	<-	Normal	Energy			2
				9	+5VLD						1
2	M0215401	CN206	EGB	1	Sensor board: Paper size: 1	<-			CN804	Sensor board	6
				2	Sensor board: Paper size: 2	<-					5
				3	Sensor board: GND						4
				4	Sensor board: Paper size: 3	<-					3
				5	Sensor board: Tray set detection	<-	Set	Unset			2
				6	Sensor board: +5V						1
		CN211	EGB	1	Registration sensor: GND				CN901	Assigned No.: 8 M0215410	3
				2	Registration sensor	<-	Papers	No paper			2
				3	Registration sensor: +5V						1
				4	Paper end sensor: GND				CN902	Assigned No.: 17 M0525424	9
				5	Paper end sensor	<-	Papers	No paper			8
				6	Paper end sensor: +5V						7
				7	Paper remain sensor: 1: GND						6
				8	Paper remain sensor: 1	<-	Papers	No paper			5
				9	Paper remain sensor: 1: +5V						4
				10	Paper remain sensor: 2: GND						3
				11	Paper remain sensor: 2	<-	Papers	No paper			2
				12	Paper remain sensor: 2: +5V						1
				13	Duplex relay sensor: GND				CN903	Duplex relay sensor	3
				14	Duplex relay sensor	<-	Papers	No paper			2
				15	Duplex relay sensor: +5V						1
3	M0525402	CN203	EGB	1	Paper feed unit: RXD	<-			CN904	Paper feed unit (Option)	14
				2	Paper feed unit: TXD	->					13
				3	Paper feed unit: GND						12
				4	Paper feed unit: GND						11
				5	Paper feed unit: +5V						10
				6	Paper feed unit: +5V						9
				7	Paper feed unit: GND						8
				8	Paper feed unit: GND						7
				9	Paper feed unit: GND						6
				10	Paper feed unit: GND						5
				11	Paper feed unit: +24V						4
				12	Paper feed unit: +24V						3
				13	Paper feed unit: +24V						2
				14	Paper feed unit: +24V						1
4	M0525403	CN232	EGB	1	+24VS				T1	Interlock SW: Front	1
				2	+24VSR				T2		1
5 (NA)	M0215404	CN225	EGB	1	Fusing thermistor	<-			CN905	Assigned No.: 19 M0525442 Fusing UNI	4
				2	Fusing thermistor: GND						3
				3	New fusing unit detection: +5V						2
				4	New fusing unit detection	<-	Used	New	CN906	Assigned No.: 20 M0525444 Fusing UNI	1
				5	Fusing unit set detection: +5V						2
				6	Fusing unit set detection	<-	Set	Unset			1
				7	N.C.				Drawe	Assigned No.: 19 M0525442 Fusing UNI	
				8	N.C.						
		T1	Grounding	1	Grounding						4
		-	-	-	N.C.				CN111	PSU	3
5 (EU)	M0215405	CN225	EGB	2	Fusing lamp: N						2
				1	Fusing lamp: L						1
				1	Fusing thermistor	<-			CN905	Assigned No.: 19 M0525443 Fusing UNI	4
				2	Fusing thermistor: GND						3
				3	New fusing unit detection: +5V						2
				4	New fusing unit detection	<-	Used	New	CN906	Assigned No.: 20 M0525445 Fusing UNI	1
				5	Fusing unit set detection: +5V						2
				6	Fusing unit set detection	<-	Set	Unset			1
				7	N.C.				Drawe	Assigned No.: 19 M0525442 Fusing UNI	
				8	N.C.						
		T1	Grounding	1	Grounding						4
		CN111	PSU	1	Fusing lamp: N						3
				2	Fusing lamp: L						2
		-	-	-	N.C.						1

PRINTER (M020/M021) WHOLE PIN ASSIGNMENTS

Assignment No.	Harness #	Connectors (from)			Signals Information				Connectors (to)		
		No.	Destination	Pin #	Signal name	Direction	L	H	No.	Destination	Pin #
6	M0215406	CN236	EGB	1	Duplex entrance sensor:GND				CN907	Duplex entrance sensor	3
				2	Duplex entrance sensor	<-	Papers	No paper			2
				3	Duplex entrance sensor:+5V				CN908	Paper exit sensor	1
				4	Paper exit sensor:GND						3
				5	Paper exit sensor	<-	Papers	No paper	CN909	Paper overflow sensor	2
				6	Paper exit sensor:+5V						1
				7	Paper overflow sensor:GND				CN910	Exhaust fan	3
				8	Paper overflow sensor	<-	No	Overflow			2
				9	Paper overflow sensor:+5V				CN911	Duplex junction solenoid	1
				10	Exhaust fan	->	OFF	ON			3
				11	Exhaust fan:Lock detection	<-	Normal	Lock	CN912	Registration sensor	2
				12	Exhaust fan:GND						1
				13	Duplex junction solenoid:Trigger	->	ON	OFF	CN913	Toner end sensor	3
				-	N.C.						2
7	M0215409	CN110	PSU	14	Duplex junction solenoid:+24VS				T1	Power SW	1
				1	AC N IN						1
				2	AC L IN						1
				3	AC N OUT						1
8	M0215410	CN901	M0525401	4	AC L OUT				T2	Transfer rollers	1
				1	Registration sensor:GND						3
				2	Registration sensor	<-	Papers	No paper			2
9	M0215411	T1	HVP	3	Registration sensor:+5V				T3	Interlock SW:Rear:Left	1
				1	HVP:T output						1
				2	N.C.				T2	Interlock SW:Rear:Right	1
10	M0215412	CN226	EGB	3	+24V						1
				1	LDB:LVDS:2:-				CN1	LDB	13
				2	LDB:LVDS:2:+	->					12
11	M0525413	CN221	EGB	3	LDB:LVDS:1:-	->					11
				4	LDB:LVDS:1:+	->					10
				5	LDB:GND						9
				6	LDB:APC gate:1	->	Valid	Invalid			8
				7	LDB:DAC:2	->					7
				8	LDB:LD error	<-	Detect	Not-detect			6
				9	LDB:DAC:1	->					5
				10	LDB:GND						4
				11	LDB:Extinction	->	LD on	LD off			3
				12	LDB:APC gate:2	->	Valid	Invalid			2
				13	LDB:+5LVD						1
12	M0215415	CN234	EGB	1	RFID:GND				CN1	RFID	6
				2	RFID:+5V						5
				3	RFID:TXD	->					4
				4	RFID:RXD	<-					3
				5	RFID:Reset	->	Reset	Normal			2
				6	RFID:GND						1
		CN230	EGB	1	HVP:GND				CN290	HVP	10
				2	HVP:PWM:T:-	->					9
				3	HVP:PWM:T:+	->					8
				4	HVP:PWM:C	->					7
				5	HVP:PWM:B	->					6
				6	HVP:+24VS						5
				7	HVP:GND						4
				8	HVP:FB:T	<-					3
				9	HVP:FB:C	<-					2
				10	HVP:FB:B	<-					1
				11	OPU:GND				CN1	OPU	7
				12	OPU:+5VE						6
				13	OPU:Clock	->					5
				14	OPU:+5VE						4
				15	OPU:TXD	->					3
				16	OPU:RXD	<-					2
				17	OPU:GND						1
13	M0215416	CN235	EGB	1	Toner end sensor:GND				CN913	Toner end sensor	3
				2	Toner end sensor	<-	Normal	Toner ends			2
				3	Toner end sensor:+5V						1
				4	By-pass paper sensor:GND				CN914	By-pass paper sensor	3
				5	By-pass paper sensor	<-	Papers	No paper			2
				6	By-pass paper sensor:+5V						1
14	M0215417	CN112	PSU	1	AC L				Inlet	Power cord	L
				2	AC N						N
		T1	Grounding	1	Grounding						E
15	M0215420	CN222	EGB	1	Synchronous detection board	<-	Sync.	Async.	CN915	Assigned No.16 G1685403	8
				2	Synchronous detection						7
				3	Synchronous detection						6
				4	Polygon motor:+24V						5
				5	Polygon motor:GND						4
				6	Polygon motor:Control	->	ON	OFF			3
				7	Polygon motor:Lock	<-	Normal	Lock			2
				8	Polygon motor:Clock	->					1

PRINTER (M020/M021) WHOLE PIN ASSIGNMENTS

Assignment No.	Harness #	Connectors (from)			Signals Information				Connectors (to)		
		No.	Destination	Pin #	Signal name	Direction	L	H	No.	Destination	Pin #
16	G1685403	CN915	M0215420	1	Synchronous detection board	<-	Sync.	Async.	CN1	Synchronous detection board	3
				2	Synchronous detection						2
				3	Synchronous detection						1
				4	Polygon motor:+24V						5
				5	Polygon motor:GND				CN1	Polygon motor	4
				6	Polygon motor:Control	->	ON	OFF			3
				7	Polygon motor:Lock	<-	Normal	Lock			2
				8	Polygon motor:Clock	->					1
17	M0525428	CN806	Sensor board	1	Sensor board:Tray set detection	<-	Set	Unset	CN916	Tray set switch	2
				2	Sensor board:+5V						1
18	M0525424	CN902	M0215401	1	Paper end sensor:GND				CN917	Paper end sensor	3
				2	Paper end sensor	<-	Papers	No paper			2
				3	Paper end sensor:+5V						1
				4	Paper remain sensor:1:GND				CN918	Paper remain sensor:1	3
				5	Paper remain sensor:1	<-	Papers	No paper			2
				6	Paper remain sensor:1:+5V						1
				7	Paper remain sensor:2:GND				CN919	Paper remain sensor:2	3
				8	Paper remain sensor:2	<-	Papers	No paper			2
				9	Paper remain sensor:2:+5V						1
19 (NA)	M0525442	CN905	M0215404 (NA)	1	Fusing lamp:N				-	Fusing lamp	-
				2	Fusing lamp:L						-
				3	N.C.						
				4	N.C.						
		CN905	M0215404 (NA)	1	New fusing unit detection	<-	Used	New	-	New fusing unit detection	-
				2	New fusing unit detection:+5V						-
				3	Fusing thermistor:GND				-	Fusing thermistor	-
				4	Fusing thermistor						-
19 (EU)	M0525443	CN905	M0215405 (EU)	1	N.C.						
				2	Fusing lamp:N				-	Fusing lamp	-
				3	Fusing lamp:L						-
				4	N.C.						
		CN905	M0215405 (EU)	1	New fusing unit detection	<-	Used	New	-	New fusing unit detection	-
				2	New fusing unit detection:+5V						-
				3	Fusing thermistor:GND				-	Fusing thermistor	-
				4	Fusing thermistor						-
20 (NA)	M0525444	CN906	M0215404 (NA)	1	N.C.						
				2	N.C.						
				3	Fusing unit set detection:+5V	<-	Set	Unset	-	Fusing unit set detection	-
				4	Fusing unit set detection						-
20 (EU)	M0525445	CN906	M0215405 (EU)	1	Debug I/F:Destination judge				-	Debug I/F:Destination judge	-
				2	Debug I/F:Destination judge						-
				3	Fusing unit set detection:+5V	<-	Set	Unset	-	Fusing unit set detection	-
				4	Fusing unit set detection						-
21	D3625132	CN2	SATIE	1	HDD:GND				CN920	HDD (SATA)	1
				2	HDD:TX+	->					2
				3	HDD:TX-	->					3
				4	HDD:GND						4
				5	HDD:RX-	<-					5
				6	HDD:RX+	<-					6
				7	HDD:GND						7
22	M3525322	CN3	SATIE		N.C.				CN921	HDD (Power)	1
				1	HDD:GND						2
				2	HDD:+5VE						3
				3	HDD:GND						4
23	-	CN207	EGB	1	Registration clutch:+24VS				-	Registration clutch	-
				2	Registration clutch:Trigger	->	ON	OFF			-
24	-	CN208	EGB	1	Paper feed clutch:+24VS				-	Paper feed clutch	-
				2	Paper feed clutch:Trigger	->	ON	OFF			-
25	-	CN209	EGB	1	By-pass feed clutch:+24V				-	By-pass feed clutch	-
				2	By-pass feed clutch:Trigger	->	ON	OFF			-
26	-	CN210	EGB	1	Relay clutch:+24VS				-	Relay clutch	-
				2	Relay clutch:Trigger	->	ON	OFF			-
27	-	CN205	EGB	1	Main motor:Clock	->			-	Main motor	-
				2	Main motor:CW/CCW	->	CCW	CW			-
				3	Main motor:Start	->	ON	OFF			-
				4	Main motor:Lock	<-	Normal	Lock			-
				5	Main motor:+5V						-
				6	Main motor:GND						-
				7	Main motor:GND						-
				8	Main motor:GND						-
				9	Main motor:+24VS						-
				10	Main motor:+24VS						-
28	M0215422	CN212	EGB	1	PSU fan:Control	->	OFF	ON	CN922	PSU fan	3
				2	PSU fan:Lock	<-	Normal	Lock			2
				3	PSU fan:GND						1
29	-	CN231	EGB	1	Transfer thermistor	<-			-	Transfer thermistor	-
				2	Transfer thermistor:GND						-
30	-	CN237	EGB	1	AIO fan:Control	->	OFF	ON	-	AIO fan	-
				2	AIO fan:Lock	<-	Normal	Lock			-
				3	AIO fan:GND						-

PRINTER (M020/M021) WHOLE PIN ASSIGNMENTS

Assignment No.	Harness #	Connectors (from)			Signals Information				Connectors (to)		
		No.	Destination	Pin #	Signal name	Direction	L	H	No.	Destination	Pin #
31	-	CN241	EGB	1	Duplex motor:A	->			-	Duplex motor	-
				2	Duplex motor:/A	->					-
				3	Duplex motor:B	->					-
				4	Duplex motor:/B	->					-
				5	Duplex motor:+24VSM						-
32	-	CN242	EGB	1	Paper exit motor:+24VSM				-	Paper exit motor	-
				2	Paper exit motor:A	->					-
				3	Paper exit motor:/A	->					-
				4	Paper exit motor:B	->					-
				5	Paper exit motor:/B	->					-
				6	Paper exit motor:+24VSM						-