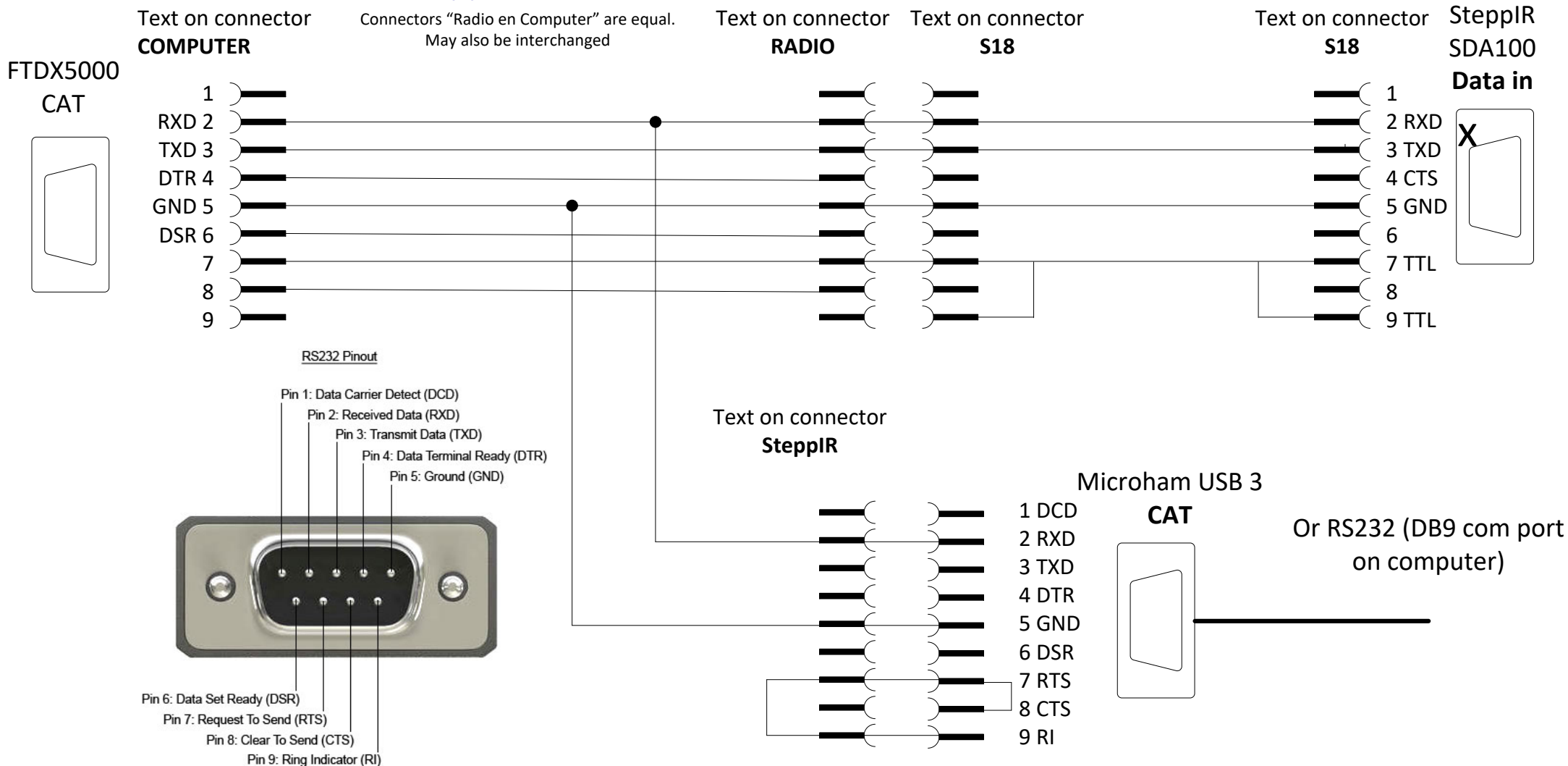# Schematic "PA0GJV" Operating Yaesu FTDX5000 and SteppIR
without computer logging program running

SteppIR Y Kabel

SteppIR S18 Kabel

Text on connector
COMPUTER

Connectors "Radio en Computer" are equal.
May also be interchanged

Text on connector
RADIO

Text on connector
S18

Text on connector
S18

SteppIR
SDA100
Data in

FTDX5000
CAT

COMPUTER		S18
1		1
RXD 2		2 RXD
TXD 3		3 TXD
DTR 4		4 CTS
GND 5		5 GND
DSR 6		6
7		7 TTL
8		8
9		9 TTL

X

RS232 Pinout

Pin 1: Data Carrier Detect (DCD)
Pin 2: Received Data (RXD)
Pin 3: Transmit Data (TXD)
Pin 4: Data Terminal Ready (DTR)
Pin 5: Ground (GND)

Pin 6: Data Set Ready (DSR)
Pin 7: Request To Send (RTS)
Pin 8: Clear To Send (CTS)
Pin 9: Ring Indicator (RI)

Text on connector
SteppIR

Microham USB 3
CAT

Or RS232 (DB9 com port
on computer)

SteppIR
1 DCD
2 RXD
3 TXD
4 DTR
5 GND
6 DSR
7 RTS
8 CTS
9 RI

Schematic how to connect without a computer logging program running. SDA100 is polling the FTDX5000.
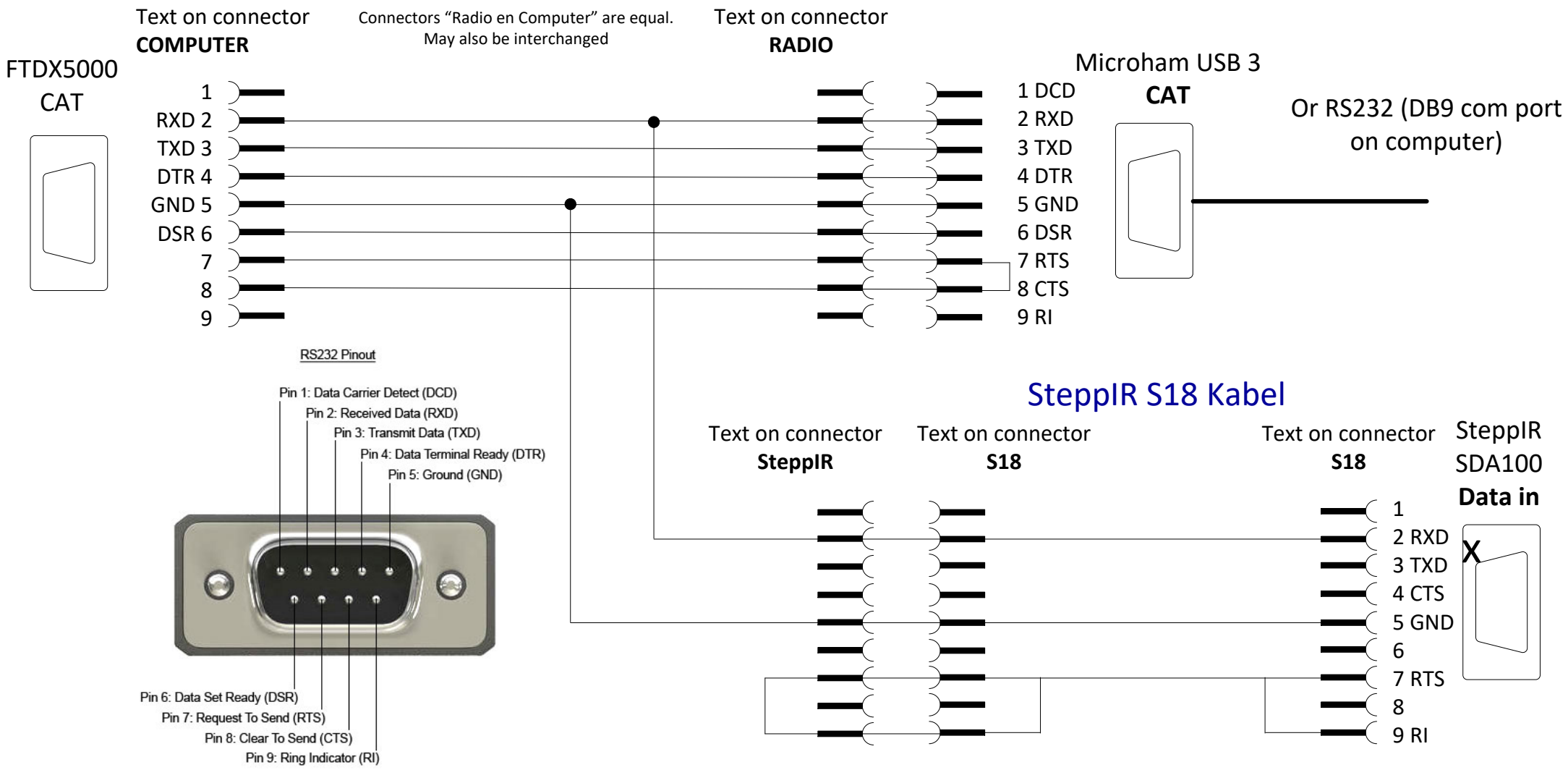In case the computer is running a logging program, the FTDX5000 answer is send to the computer via the Microham USB 3 CAT interface, or RS232 on computer
Advantage: No re plugging necessary. When only using the FTDX5000 and SteppIR antenna, no running computer neeeded. In contest with eg. N1MM running on the computer, all works well. Disadvantage, clicking in N1MM active screen will not result in any action on the FTDX5000.
When one needs 100% active operation, just connect **S18** from **Radio** to **SteppIR** connector. And connect **Radio** connnector to Microham **CAT** or computer RS232 connector. See the "normal operation" Diagram.

PA0GJV

Schematic "PA0GJV" Operating Yaesu FTDX5000 and SteppIR
Normal operation

SteppIR Y Kabel

Text on connector
COMPUTER

Connectors "Radio en Computer" are equal.
May also be interchanged

Text on connector
RADIO

FTDX5000
CAT

Microham USB 3
CAT

Or RS232 (DB9 com port on computer)

COMPUTER	RADIO
1	1 DCD
RXD 2	2 RXD
TXD 3	3 TXD
DTR 4	4 DTR
GND 5	5 GND
DSR 6	6 DSR
7	7 RTS
8	8 CTS
9	9 RI

RS232 Pinout

Pin 1: Data Carrier Detect (DCD)
Pin 2: Received Data (RXD)
Pin 3: Transmit Data (TXD)
Pin 4: Data Terminal Ready (DTR)
Pin 5: Ground (GND)

Pin 6: Data Set Ready (DSR)
Pin 7: Request To Send (RTS)
Pin 8: Clear To Send (CTS)
Pin 9: Ring Indicator (RI)

SteppIR S18 Kabel

Text on connector
SteppIR

Text on connector
S18

Text on connector
S18

SteppIR
SDA100
Data in

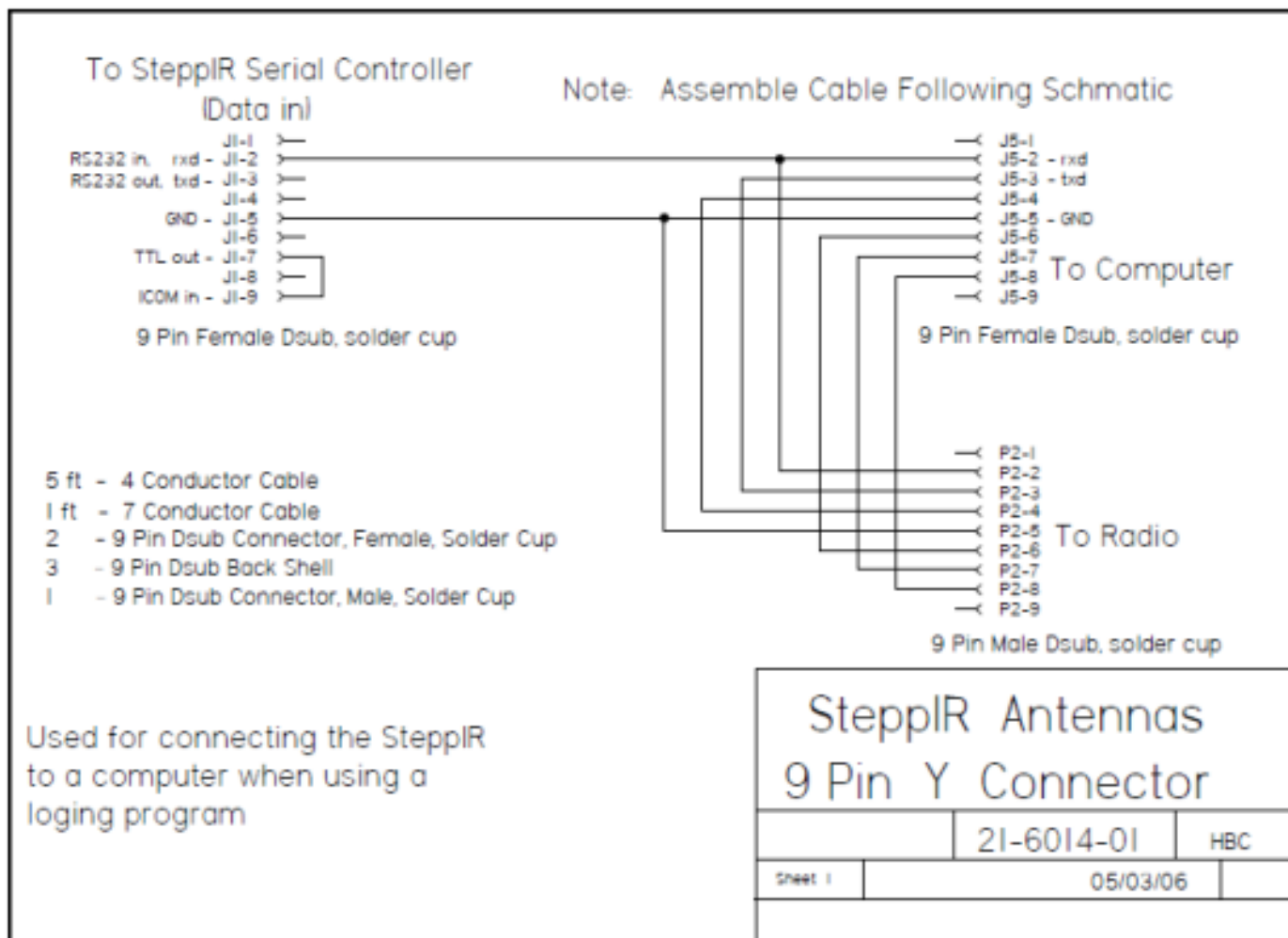| S18 |
|---|
| 1 |
| 2 RXD |
| 3 TXD |
| 4 CTS |
| 5 GND |
| 6 |
| 7 RTS |
| 8 |
| 9 RI |

Schematic how to connect SteppIR SDA controller to a computer, with logging program running, and the Yeasu FTDX5000.

Normally this can achieved using only the SteppIR Y-cable and cable S18 not used. But often I don't need a logging program running or the computer is used for other tasks and only want to operate the radio and SteppIR antenna. Therefore I made this solution with the possibiliy to switch over when the computer is not available. See diagram "No logging running"

Since RXD and TXD in SDA100 are crossed internally a straight cable can be used.

PA0GJV

To SteppIR Serial Controller
(Data in)

Note: Assemble Cable Following Schmatic

JI-I		J5-I
RS232 in. rxd - JI-2		J5-2 - rxd
RS232 out. txd - JI-3		J5-3 - txd
JI-4		J5-4
GND - JI-5		J5-5 - GND
JI-6		J5-6
TTL out - JI-7		J5-7
JI-8		J5-8
ICOM in - JI-9		J5-9

9 Pin Female Dsub, solder cup

To Computer

9 Pin Female Dsub, solder cup

P2-I
P2-2
P2-3
P2-4
P2-5
P2-6
P2-7
P2-8
P2-9

To Radio

9 Pin Male Dsub, solder cup

5 ft - 4 Conductor Cable
I ft - 7 Conductor Cable
2   - 9 Pin Dsub Connector, Female, Solder Cup
3   - 9 Pin Dsub Back Shell
I   - 9 Pin Dsub Connector, Male, Solder Cup

Used for connecting the SteppIR
to a computer when using a
loging program

SteppIR Antennas
9 Pin Y Connector

	2I-60I4-0I	HBC
Sheet I	05/03/06	