

SI4432 UHF Transceiver

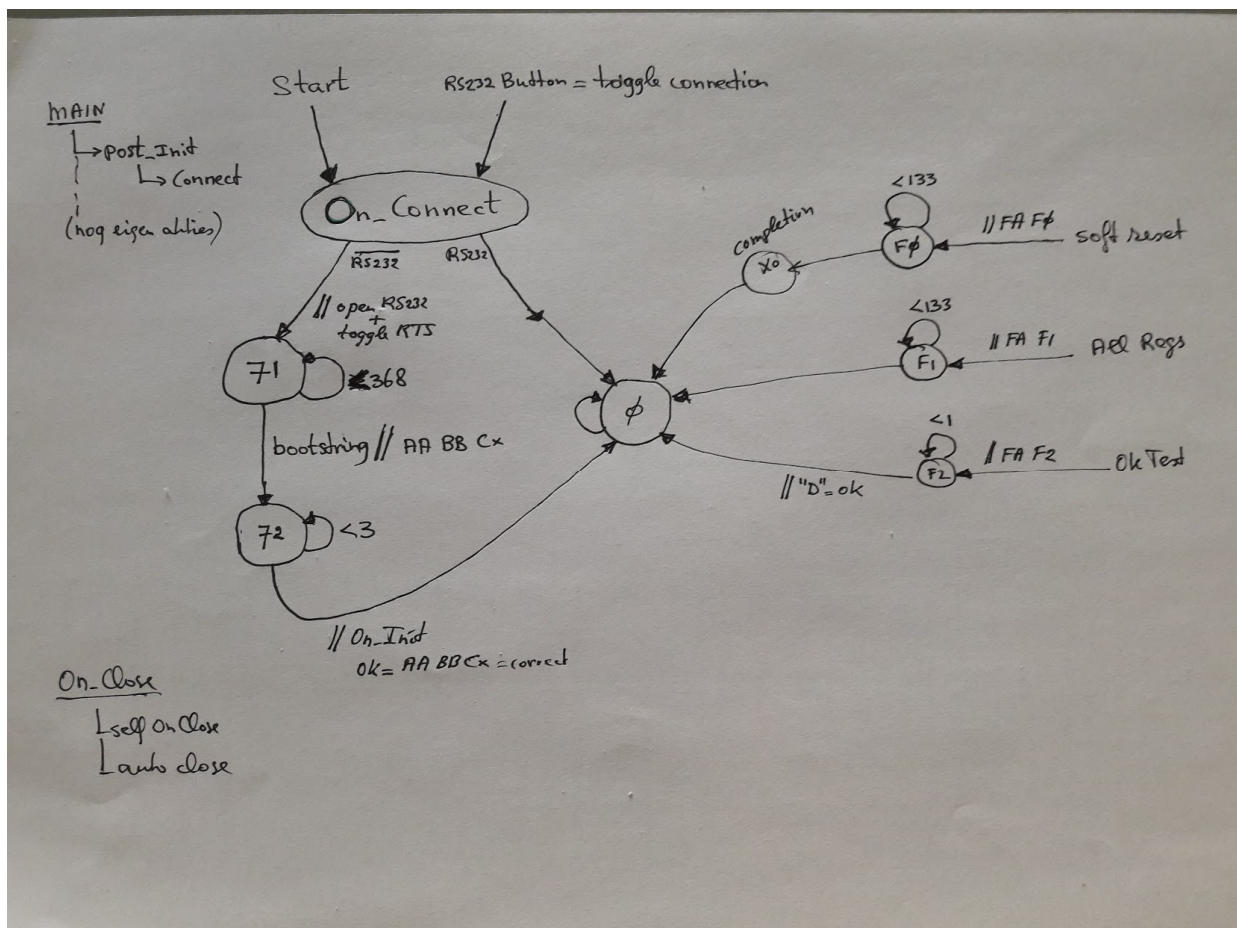
5 August, 2020
8:21

These programs are based on previous programs written in JAL on a PIC, controlling the SI4432 UHF transceiver, described here http://mientki.ruhosting.nl/data_www/raspberry/doc/si4432_support_package.html We've replaced the PIC with an ESP32 (probably an ESP8266 and other Arduino boards can also be used) and the programming on the controlling computer is done in Python 3.6 or 3.7 (was Python 2.7).

ESP32	SI4432	Notes
	1 = GND	
22	4 = GPIO2	Raw Detected Rx output
	5 = Vcc	3V3
19 = MISO	6 = SDO	
23 = MOSI	7 = SDI	
18 = CLK	8 = SCLK	
5 = SS	9 = NSEL	
17	10 = NINTR	Not used at the moment
16	11 = SDN	ShutDown (for a hard reset)
	12 = GND	
12	QIA-Rx	QIA Receiver Pin (better suited for StreamViewer)

Converted and tested:

ID_String	Device	Remarks
\xAA\xBB\xC0	Spectrum Analyser	We want to compare this soectrum analyzer with a Koning&Hartman TR4132 and a DVB 820T2 & SDR
\xAA\xBB\xC1	ESP UHF-Generator	
\xAA\xBB\xC2	ESP Interactive Register Viewer	
\xAA\xBB\xC3	ESP Logic Packet Viewer (on QIA chip)	
\xAA\xBB\xC4	ESP Logic Packet Viewer (on SI4432)	
\xAA\xBB\xCC	ESP Register Viewer	



ToDo:

Changes

- The starting ID-String \xAA\xBB\xCC is replaced by a unique string per application, so the extra program number ID, like \xFB\xF6 for the UHF-Generator is not necessary anymore. The ID-string is first send by the computer and is echoed by the ESP.