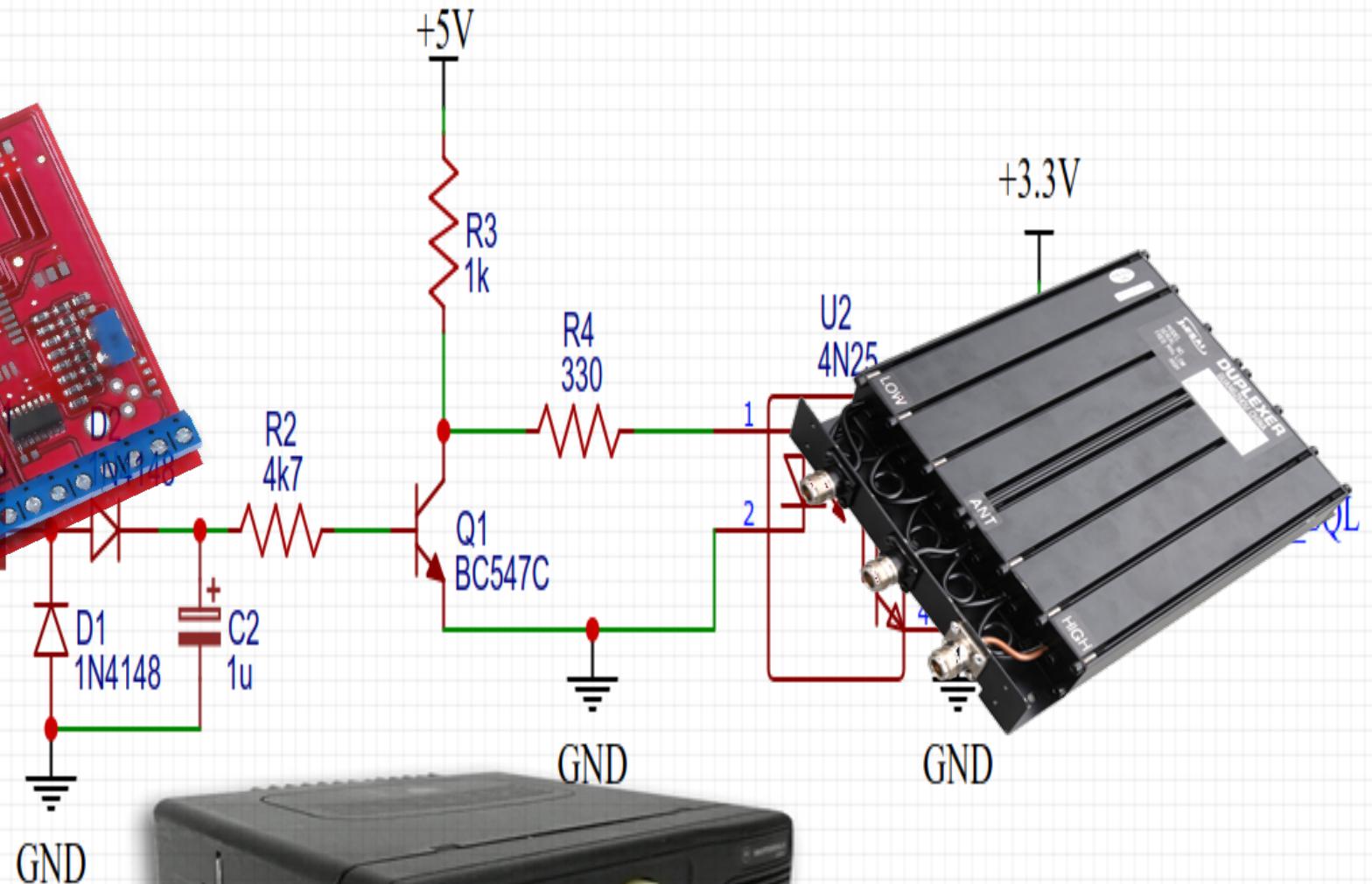
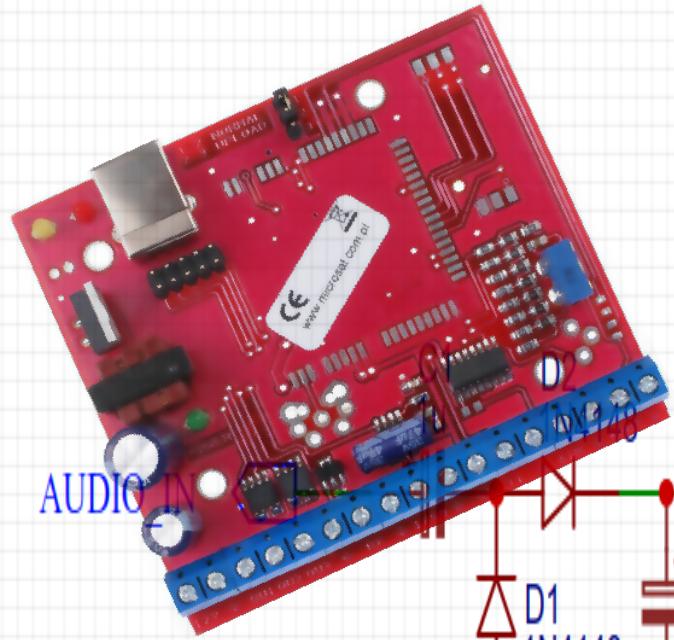
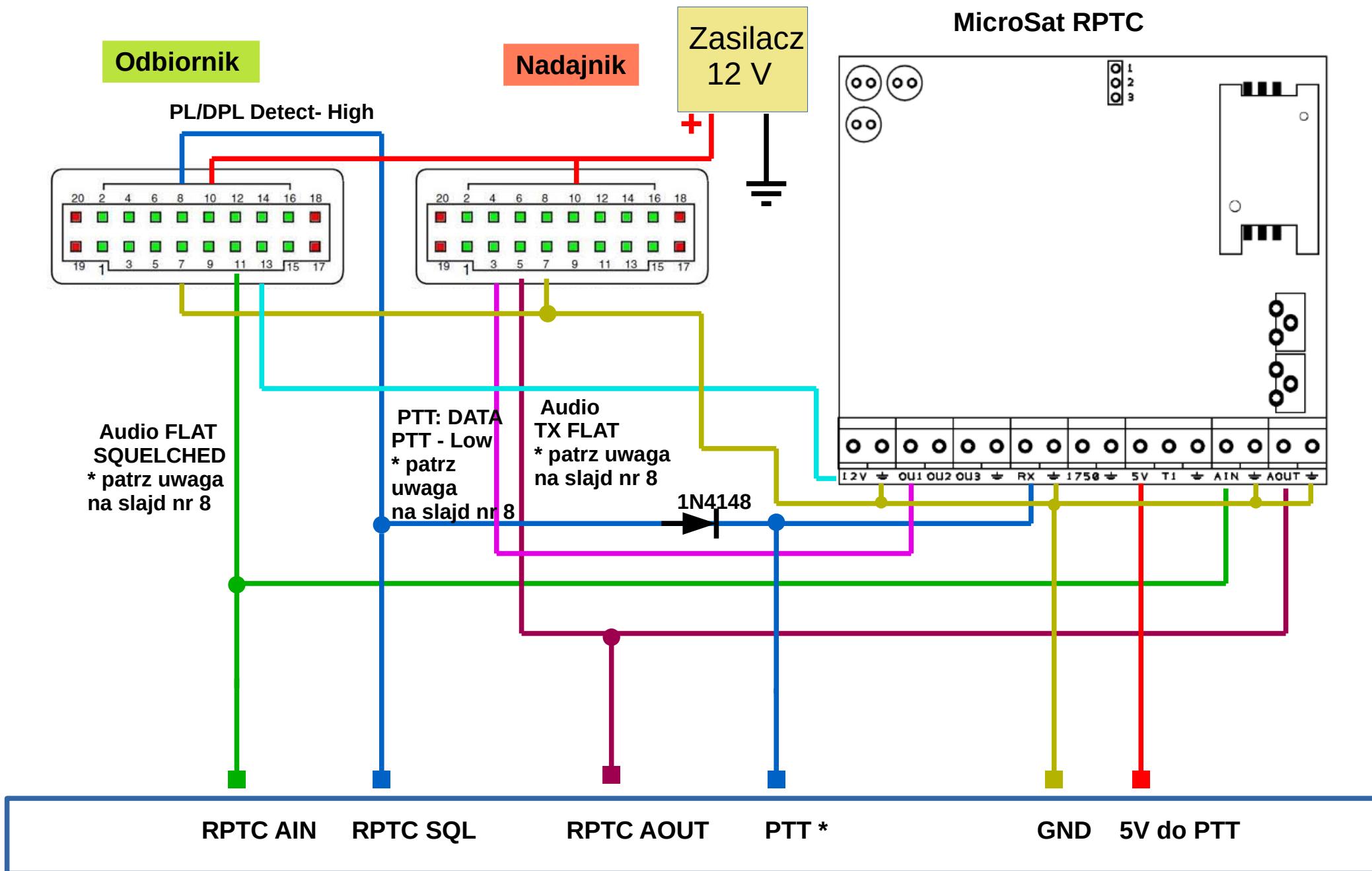


# SVXlink i RPTC MicroSat

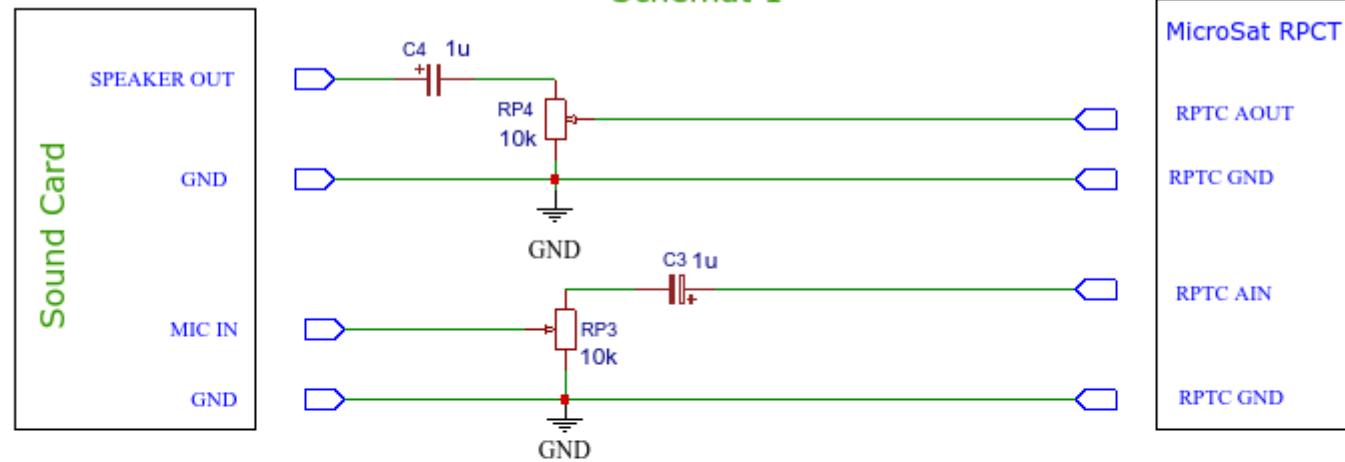




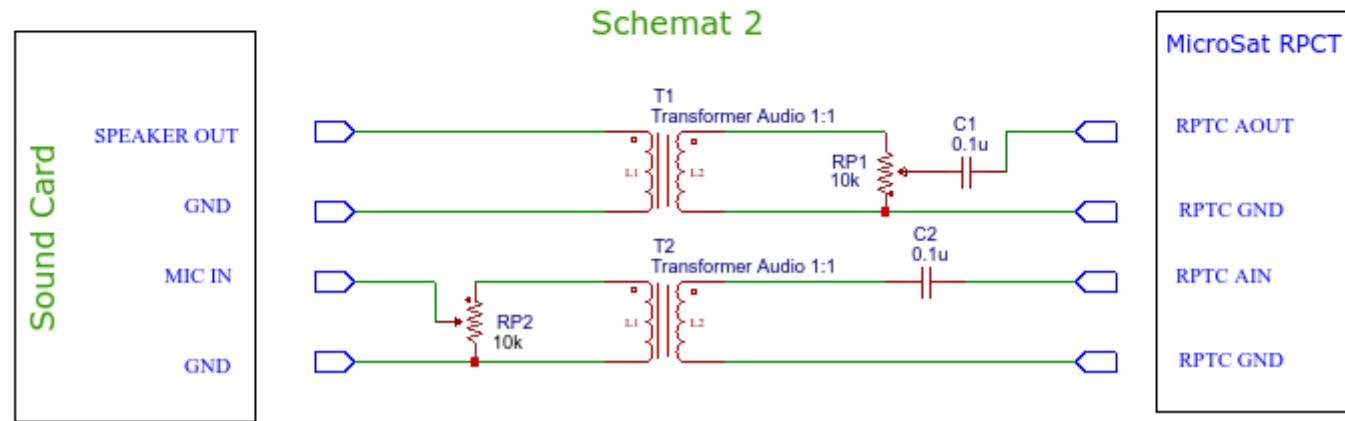
Interfejs do RPI/OZPI (\* uwaga nietypowe rozwiązanie PTT i podłączenie do RPTC)

SVXlink pracuje w trybie SimplexLogic. Zasilanie RPTC może być z odbiornika PIN 13 (max 300 mA) lub z zasilacza 12V  
RPTC pobiera 50 mA w wersji bez modułu GSM (z GSM do 500 mA wtedy korzystać z 12V z zasilacza)

Schemat 1



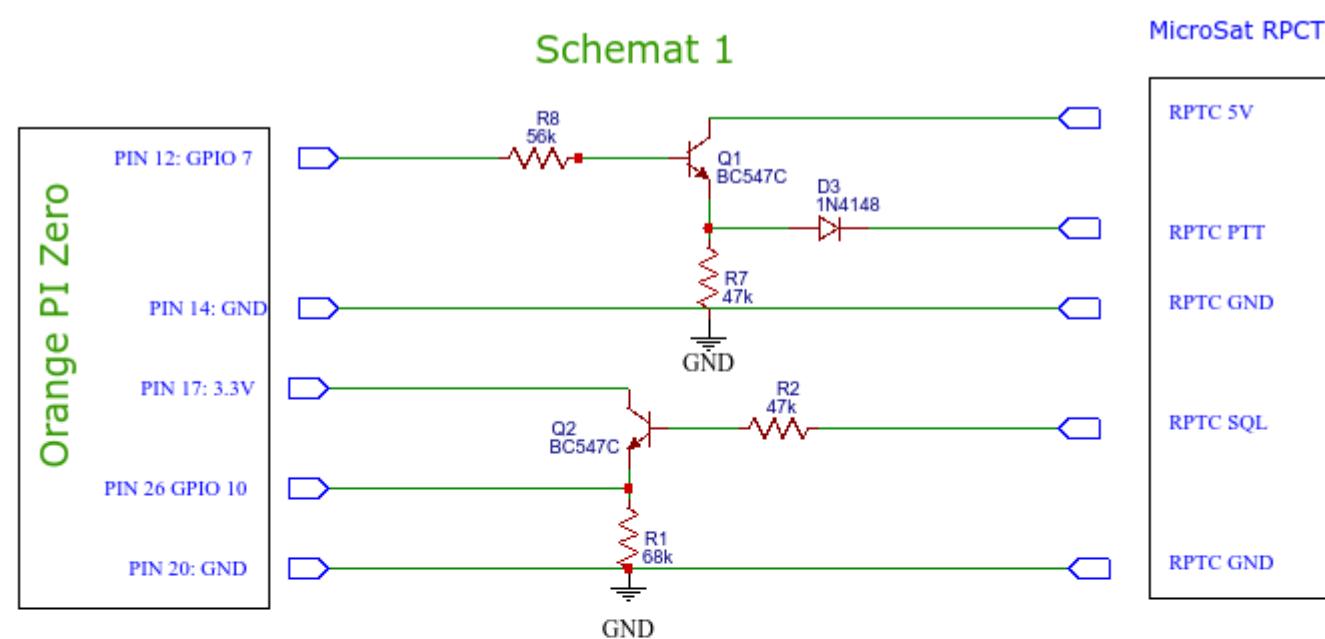
Schemat 2



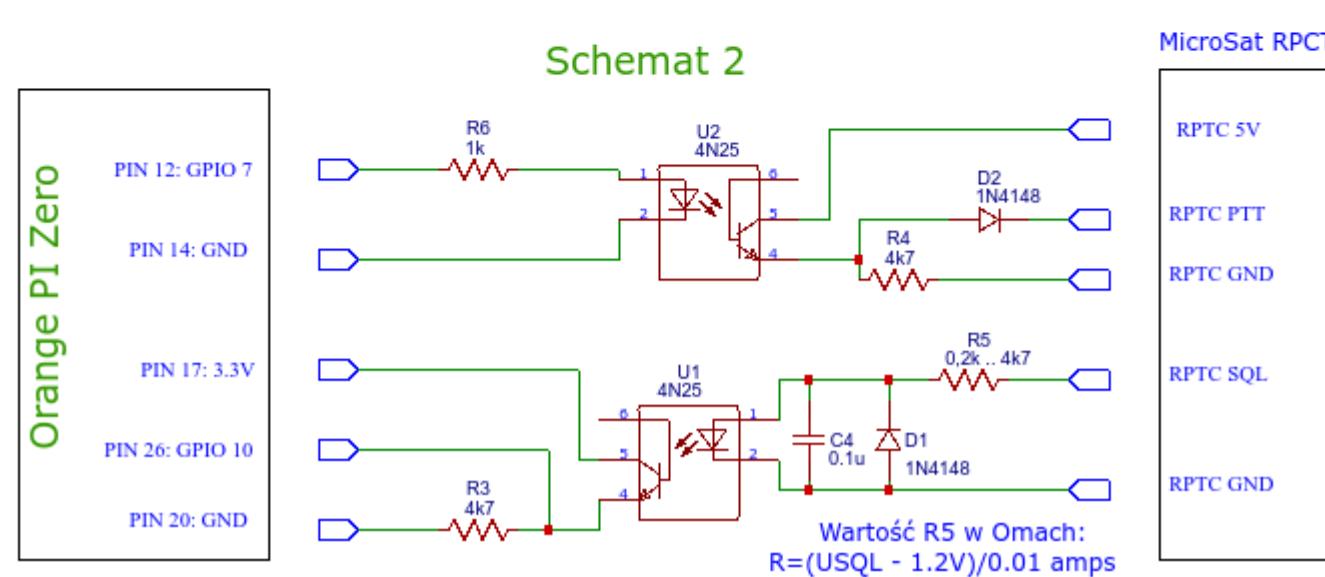
Dwa schematy do wyboru podłączenia toru audio pomiędzy kartą dźwiękową a nadajnikiem i odbiornikiem radiowym. Potencjometry mogą być opcjonalne. W przypadku wyboru schematu nr 2 należy zadbać aby transformatory przenosiły Wymagany zakres pasma akustycznego i umożliwiały dobrze dopasować układ opornościowy w zastosowanym układzie.

# Orange PI Zero

Schemat 1

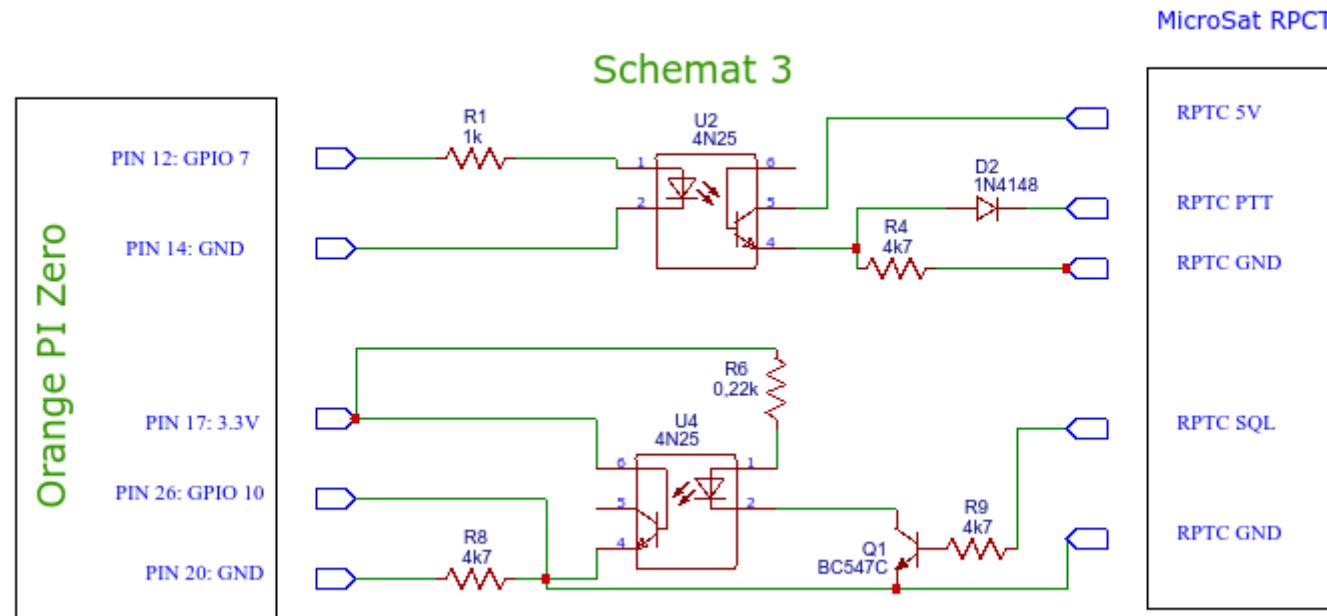


Schemat 2



Dwa schematy do wyboru do obsługi PTT i kontroli otwarcia blokady odbiornika SQL

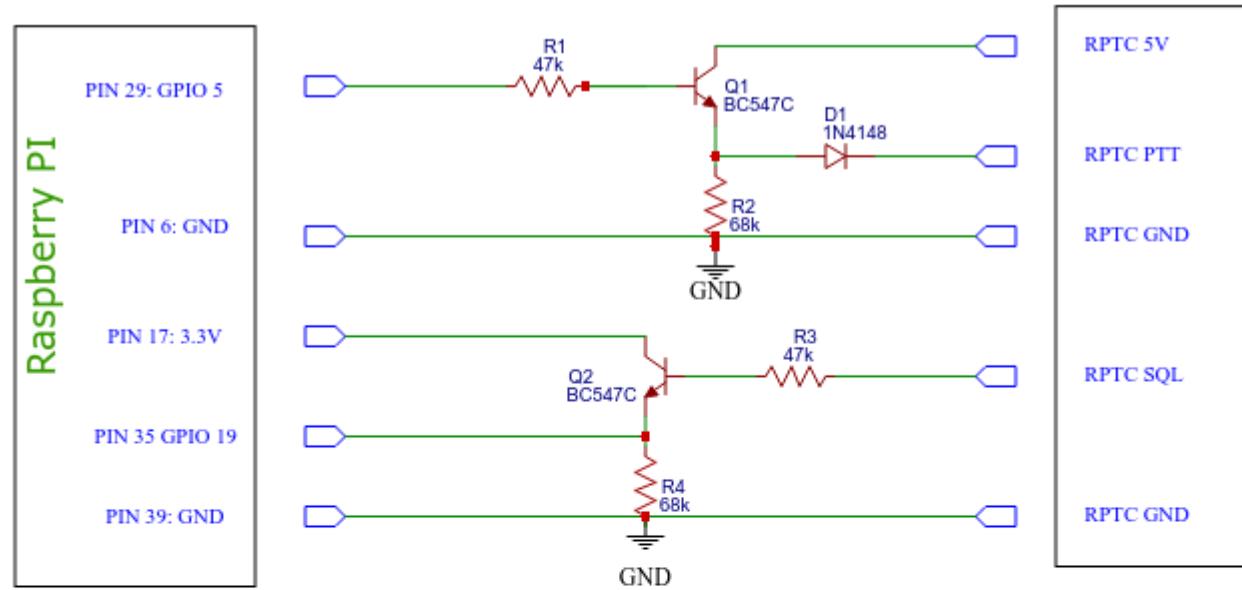
# Orange PI Zero



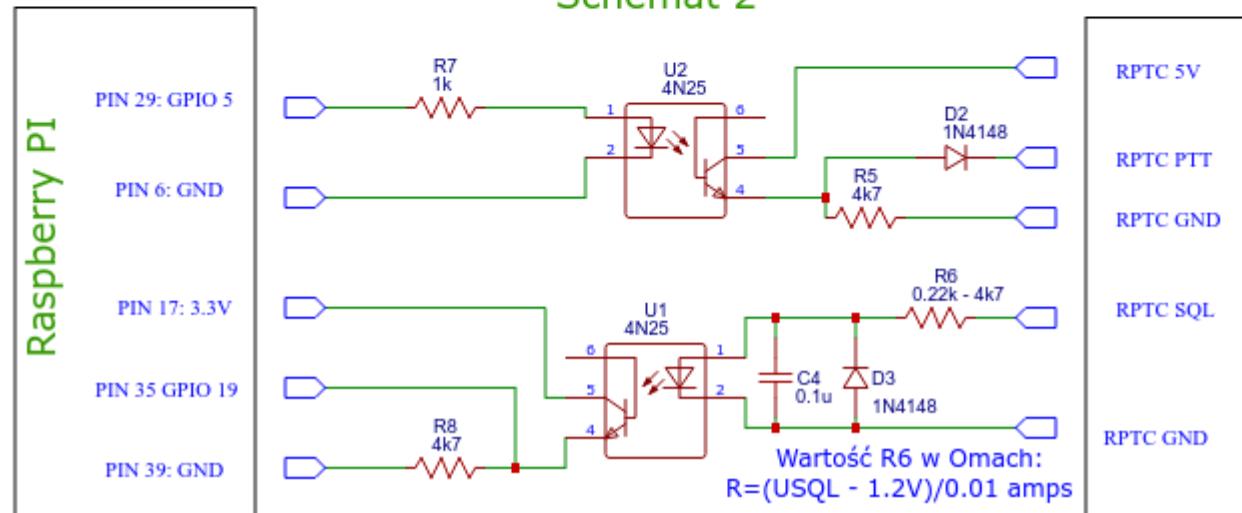
Alternatywny układ kontroli PTT oraz otwarcia odbiornika SQL który jest wyposażony w dodatkowy tranzystor Q1 który pozwala podłączyć sygnał SQL o niskim napięciu i mały prądzie aby móc odpowiednio kluczować transoptor U4

# Raspberry PI / Libre Computer

## Schemat 1

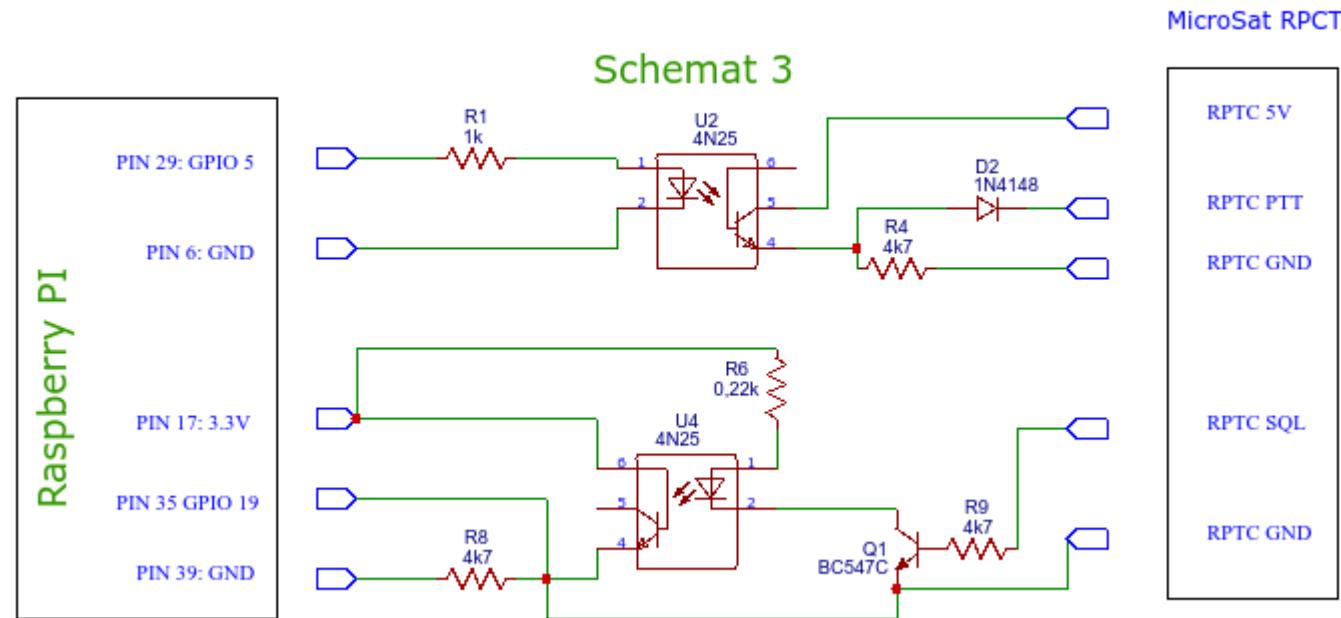


## Schemat 2



Dwa schematy do wyboru do obsługi PTT i kontroli otwarcia blokady odbiornika SQL

# Raspberry PI / Libre Computer



Alternatywny układ kontroli PTT oraz otwarcia odbiornika SQL który jest wyposażony w dodatkowy tranzystor Q1 który pozwala podłączyć sygnał SQL o niskim napięciu i mały prądzie aby móc odpowiednio kluczować transoptor U4

**\* UWAGA:** Warto rozważyć ustawienia w Motoroli RX Audio na “FILTERED SQUELCHED” na PIN 11. Wyjście audio podawać zamiast na PIN 5 na PIN 2 “EXT MIC” gdzie PIN 3 należy zaprogramować na “External Mic PTT”. W tym przypadku DEEMPHASIS i PREEMPHASIS w Svxlink ma być 0.

Rekomendowane używanie zewnętrznej karty dźwiękowej CM108 z OZPI i RPI ze względu na jakość dźwięku. Kartę można kupić na aliexpress lub allegro:



**Rozwiązanie przedstawione wymaga testów i wybrania optymalnego rozwiązania dla danego zestawu**

# Ustawienia GM3xx Odbiornik

**Per Radio Miscellaneous**

Memory and Power Up Channels	Timers	Microphone	Vox
Global	Display and Keypad	Prefix	
Language English			
Option Board Type No Option Board			
Rx Audio (Accessory Connector) Flat Squelched			
Radio ID 00000000			
<input type="checkbox"/> Enable Radio Lock	Radio Lock Password 00000		
<input checked="" type="checkbox"/> Handset Audio			
<input checked="" type="checkbox"/> Ignition Sense			
<input type="checkbox"/> Ignition Override			
<input type="checkbox"/> Single Status List			
<input type="checkbox"/> Test Mode Disable			
Fast Vote RSSI Level (dBm) (-120 .. -70, 1)	-70		
Start Scan RSSI Level (dBm) (-120 .. -70, 1)	-85		

**Close** **Help**

**Per Radio GP I/O Lines**

Accessory Package	General I/O Package		
Pin #	Function	Active Level	Debounce Enable
3	Disabled	Low	<input type="checkbox"/>
4	Disabled	High	<input type="checkbox"/>
6	Disabled	Low	<input type="checkbox"/>
8	PL/DPL Detect	High	<input type="checkbox"/>
9	Disabled	Low	<input type="checkbox"/>
12	Disabled	Low	<input type="checkbox"/>
14	Disabled	Low	<input type="checkbox"/>
Accessory Power Up Delay (ms) (0 .. 6300, 100)		2000	
Accessory Debounce Duration (ms) (50 .. 750, 50)		50	

**Close** **Help**

**Per Channel-1 of 1**

TX/RX	Display	PL/DPL	Miscellaneous
Encode PL Type PL	Encode DPL Code 023	Encode PL Code XZ / 67.0 Hz	... Encode PL Frequency (Hz) 67.0
<input type="checkbox"/> PL Reverse Burst / DPL TOC			
Decode PL Type PL	Decode DPL Code 023	Decode PL Code XZ / 67.0 Hz	... Decode PL Frequency (Hz) 67.0

**1 of 1** **Close** **Help**

**Per Personality-1 of 1**

TX/RX	Squelch	Miscellaneous	Audio	PTT	S5 Encode	S5 Decode
Rx Squelch Mode PL/DPL Squelch	Monitor 1 Squelch Mode Carrier Squelch	Channel Change Squelch Mode Rx Squelch Mode	<input type="checkbox"/> Reverse Squelch	<input type="checkbox"/> PL Override		

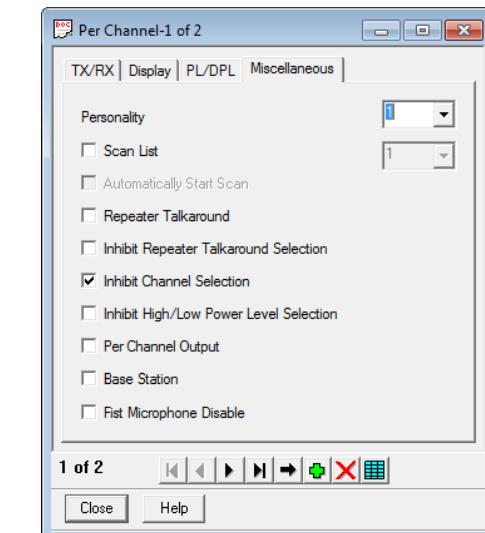
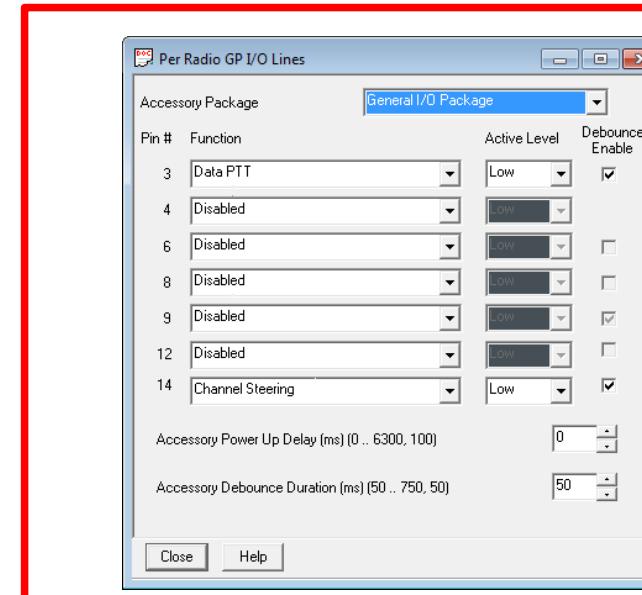
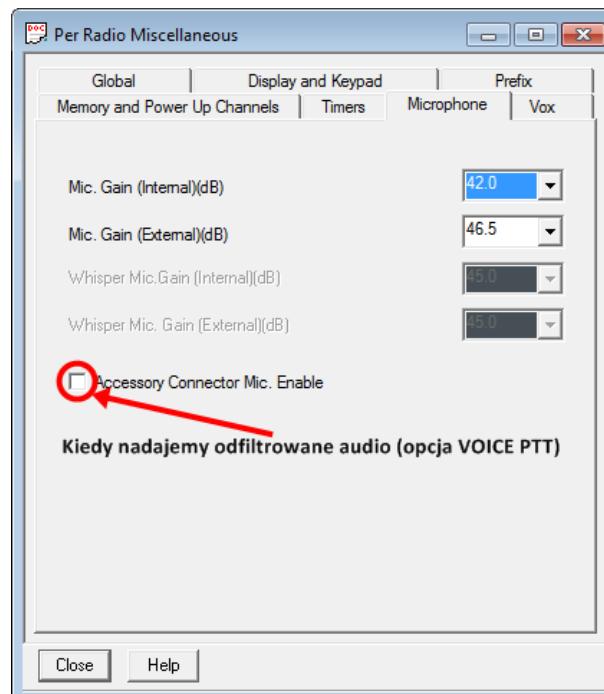
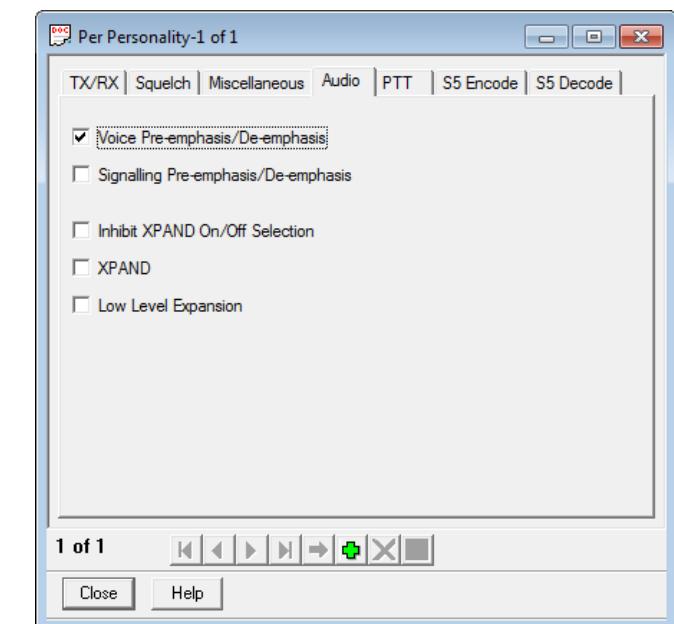
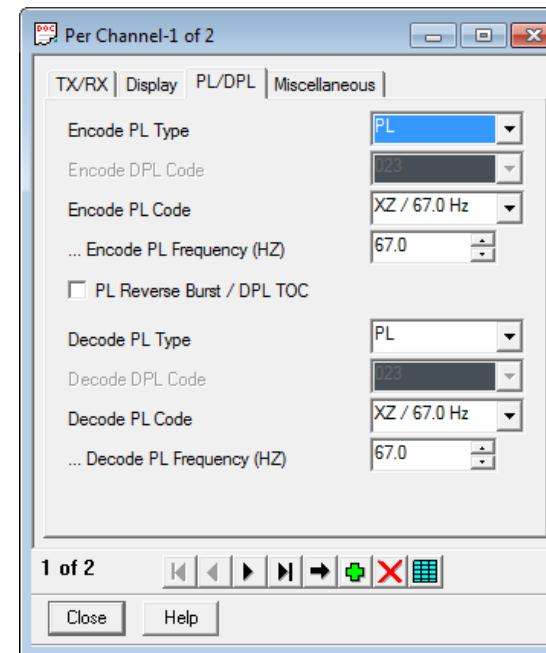
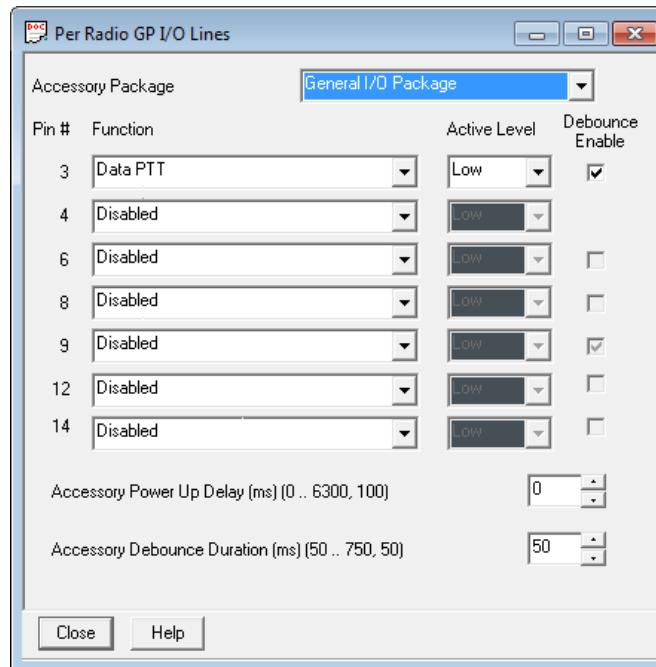
**1 of 1** **Close** **Help**

**Per Personality-1 of 1**

TX/RX	Squelch	Miscellaneous	Audio	PTT	S5 Encode	S5 Decode
<input checked="" type="checkbox"/> Voice Pre-emphasis/De-emphasis <input type="checkbox"/> Signalling Pre-emphasis/De-emphasis <input type="checkbox"/> Inhibit XPAND On/Off Selection <input type="checkbox"/> XPAND <input type="checkbox"/> Low Level Expansion						

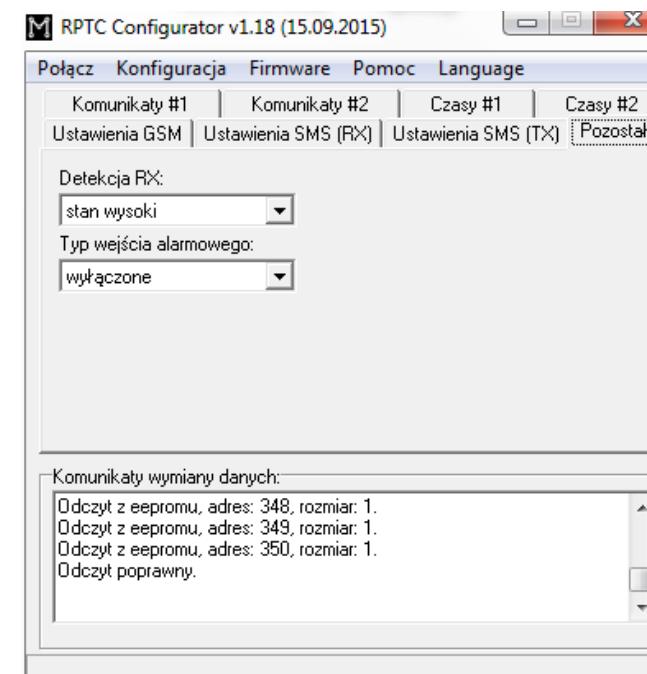
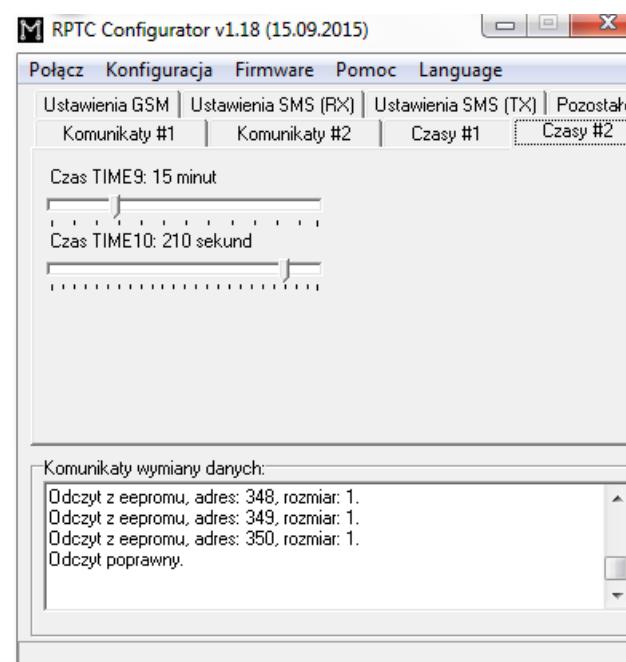
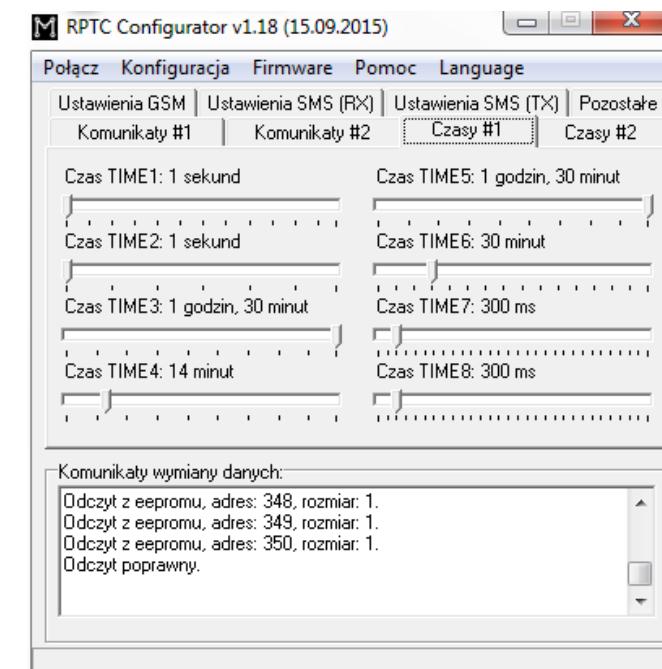
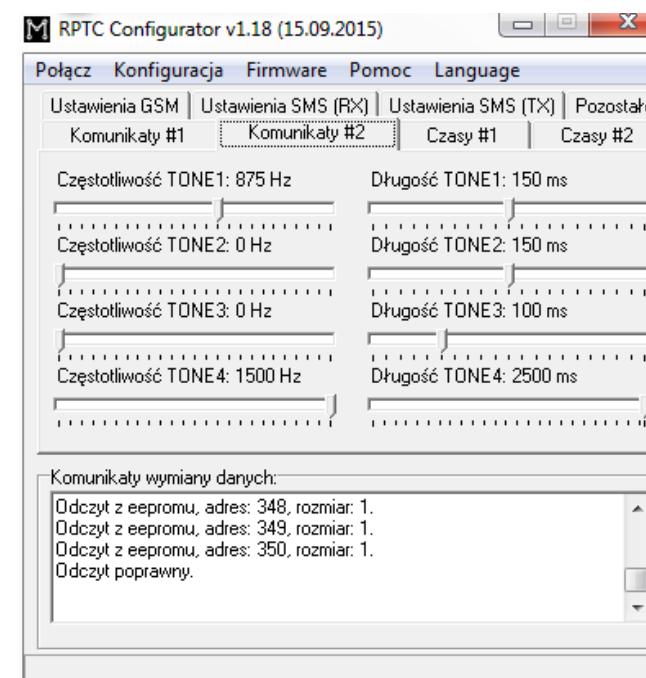
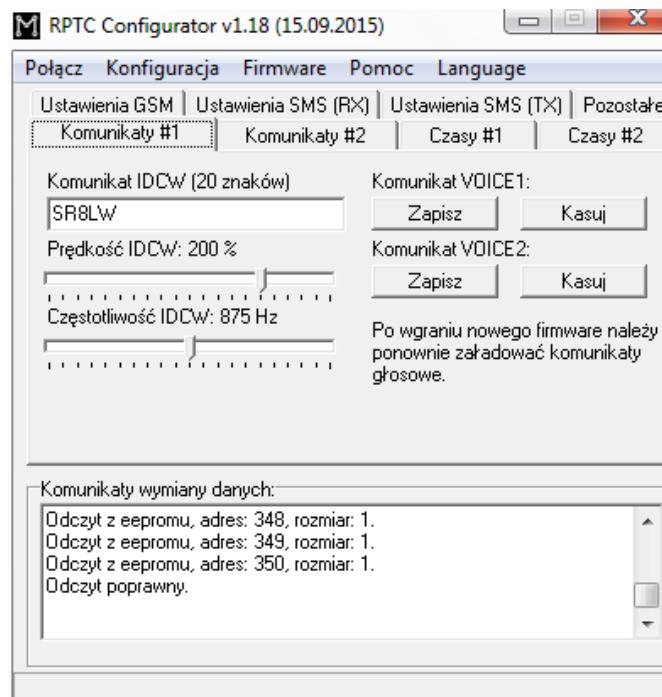
**1 of 1** **Close** **Help**

# Ustawienia GM3xx Nadajnik



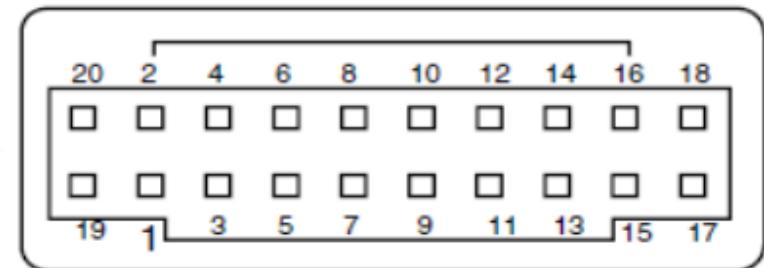
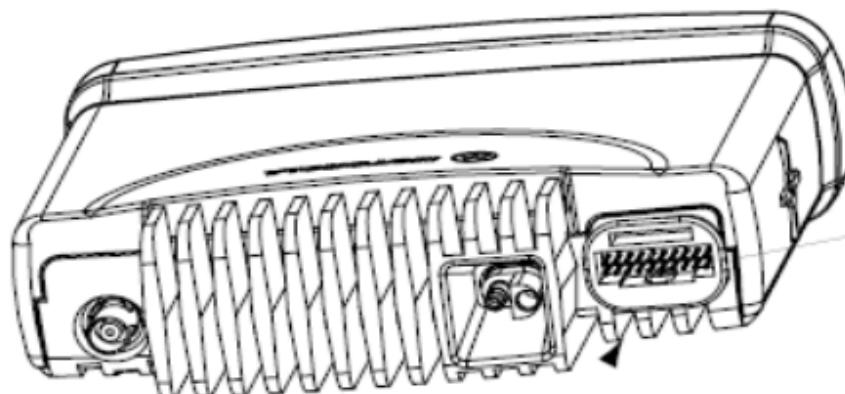
Ustawienia do zmiany kanału (opcja)

# Ustawienia MicroSat RPTC



# GM-350/950 INTERFACING

PIN n°	Function	Comments
2	Mic input	nominal input level is 80mV for 60% deviation. The impedance is about 1k
3	Ext PTT	GP1 set to PTT by codeplug. 4.7 kohm Internal Pull Up Resistor to +5 V. GND to TX
4	Carr detect	GP2 set to Carrier detect by codeplug / Level <b>0 - 11v about !!!!</b>
5	Flat TX audio in	nominal input level is 150 mVRMS for 60% deviation. The impedance > 25k
7	Ground	Ground for audio , signals I/O
8	CTCSS detect	GP3 set to PL/CTCSS detect by codeplug, level 0 - 5v about
10	Ignition Sense	Connect to +12v by 1k2 ... 4k7 resistor. Required for auto startup when DC applied.
11	RX audio out	continuous discriminator audio, level 330 mVRMS @ 60% deviation, impedance 600 ohms.
15	RSSI	Received Signal Strength Indication, buffered analog voltage (2.00- 4.50v about)



\* Note the location of pin 1.

Pins 17 to 20 not present on GM-350 !