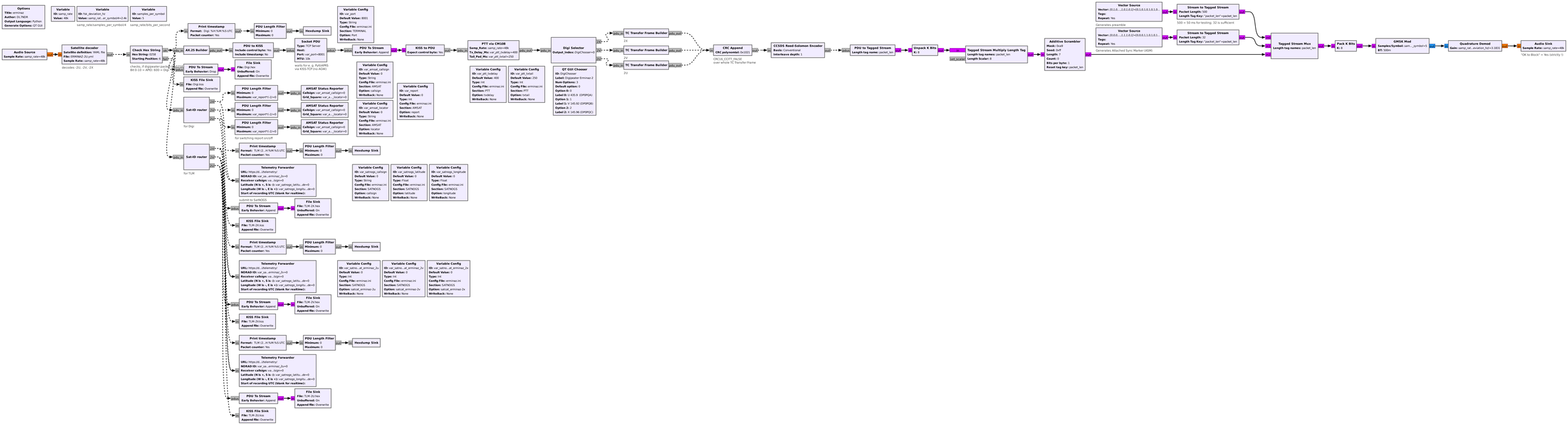

Options
Title: emrinaz
Author: DL7NDR
Output Language: Python
Generate Options: QT GUI
Variable
ID: samp_rate
Value: 48k
Variable
ID: tok_deviation_hz
Value: samp_rat...er_symbol/4*2.4k
samp_rate/samples_per_symbol/4
Variable
ID: samples_per_symbol
Value: 5
samp_rate/bits_per_second
Audio Source
Sample Rate: samp_rate=48k
Satellite decoder
Satellite definition: YAML file
File: EMINNAZ-2G.yml
Sample Rate: samp_rate=48k
decodes -2G1, -2V, -2X
Check Hex String
Hex String: 0258
Starting Position: 6
checks, if digipeater path=0
Bit 0-10 = APID: 600 = Digi
AX.25 Builder
pdu_out
PDU To Stream
Early Behavior: Drop
KISS File Sink
File: Digi.kss
Append file: Overwrite
Print timestamp
Format: Digi: %H:%M:%S UTC
Packet counter: Yes
PDU Length Filter
Minimum: 0
Maximum: 0
Hexdump Sink
Sat-ID router
for Digi
Sat-ID router
for TLM
PDU Length Filter
Minimum: 0
Maximum: var_report!=(-1)+0
AMSAT Status Reporter
Callsign: var_amsat_callsign+0
Grid_Square: var_a..._locator+0
for switching report on/off
Print timestamp
Format: TLM (2...H:%M:%S UTC
Packet counter: Yes
PDU Length Filter
Minimum: 0
Maximum: 0
Hexdump Sink
Telemetry Forwarder
URL: https://d...ltelemetry/
NORAD ID: var_pa...erminaz_2v+0
Receiver callsign: va...ligin+0
Latitude (N is +, S is -): var_satmoja_latitu...de+0
Longitude (W is -, E is +): var_satmoja_longitu...de+0
Start of recording UTC (blank for realtime):
submit to SatNOGS
File Sink
File: TLM-2X.hex
Unbuffered: On
Append file: Overwrite
PDU To Stream
Early Behavior: Append
KISS File Sink
File: TLM-2X.kss
Append file: Overwrite
Print timestamp
Format: TLM (2...H:%M:%S UTC
Packet counter: Yes
PDU Length Filter
Minimum: 0
Maximum: 0
Hexdump Sink
Telemetry Forwarder
URL: https://d...ltelemetry/
NORAD ID: var_pa...erminaz_2v+0
Receiver callsign: va...ligin+0
Latitude (N is +, S is -): var_satmoja_latitu...de+0
Longitude (W is -, E is +): var_satmoja_longitu...de+0
Start of recording UTC (blank for realtime):
PDU To Stream
Early Behavior: Append
File Sink
File: TLM-2V.hex
Unbuffered: On
Append file: Overwrite
KISS File Sink
File: TLM-2V.kss
Append file: Overwrite
Print timestamp
Format: TLM (2...H:%M:%S UTC
Packet counter: Yes
PDU Length Filter
Minimum: 0
Maximum: 0
Hexdump Sink
Telemetry Forwarder
URL: https://d...ltelemetry/
NORAD ID: var_pa...erminaz_2v+0
Receiver callsign: va...ligin+0
Latitude (N is +, S is -): var_satmoja_latitu...de+0
Longitude (W is -, E is +): var_satmoja_longitu...de+0
Start of recording UTC (blank for realtime):
PDU To Stream
Early Behavior: Append
File Sink
File: TLM-2U.hex
Unbuffered: On
Append file: Overwrite
KISS File Sink
File: TLM-2U.kss
Append file: Overwrite
PDU To KISS
Include control byte: Yes
Include timestamp: No
File Sink
File: Digi.hex
Unbuffered: On
Append file: Overwrite
Socket PDU
Type: TCP Server
Host:
Port: var_port+8001
MTU: 10k
waits for e. g. PyttyAPRS
via KISS-TCP (no AGW)
Variable Config
ID: var_port
Default Value: 8001
Type: String
Config File: emrinaz.ini
Section: TERMINAL
Option: Port
WriteBack: None
PDU To Stream
Early Behavior: Append
KISS to PDU
Expect control byte: Yes
Variable Config
ID: var_amsat_callsign
Default Value: 0
Type: String
Config File: emrinaz.ini
Section: AMSAT
Option: callsign
WriteBack: None
Variable Config
ID: var_amsat_locator
Default Value: 0
Type: String
Config File: emrinaz.ini
Section: AMSAT
Option: locator
WriteBack: None
Variable Config
ID: var_report
Default Value: 0
Type: int
Config File: emrinaz.ini
Section: AMSAT
Option: report
WriteBack: None
PTT via CM108
Samp_Rate: samp_rate=48k
Tx_Delay_Ms: var_ptt_txdelay+400
Tail_Pad_Ms: var_ptt_txtail+250
Variable Config
ID: var_ptt_txdelay
Default Value: 400
Type: int
Config File: emrinaz.ini
Section: PTT
Option: txdelay
WriteBack: None
Variable Config
ID: var_ptt_txtail
Default Value: 250
Type: int
Config File: emrinaz.ini
Section: PTT
Option: txtail
WriteBack: None
Digi Selector
Output_Index: DigiChooser+0
QT GUI Chooser
ID: DigiChooser
Label: Digipeater Emrinaz-2
Num Options: 3
Default option: 0
Option 0: 0
Label 0: U 435.9 (DPDPQA)
Option 1: 1
Label 1: V 145.92 (DPDPQB)
Option 2: 2
Label 2: X 145.96 (DPDPQC)
TC Transfer Frame Builder
2X
TC Transfer Frame Builder
2V
TC Transfer Frame Builder
2U
CRC Append
CRC polynomial: 0x1021
CRC16_CCITT_FALSE
over whole TC Transfer Frame
CCSDS Reed-Solomon Encoder
Basis: Conventional
Interleave depth: 1
PDU to Tagged Stream
Length tag name: packet_len
Unpack K Bits
K: 8
Tagged Stream Multiply Length Tag
Length tag names: packet_len
Length Scaler: 8
Additive Scrambler
Mask: 0x49
Seed: 0xff
Length: 7
Count: 0
Bits per byte: 1
Reset tag key: packet_len
Vector Source
Vector: (0,1,0,...,1,0,1,0,1)*(0,1,0,1,0,1,0,1,0,...
Tags:
Repeat: Yes
Generates preamble
Vector Source
Vector: (0,0,0,...,1,1,1,0,1)*(0,0,0,1,1,0,1,0,1,...
Tags:
Repeat: Yes
Generates Attached Sync Marker (ASM)
Stream to Tagged Stream
Packet Length: 500
Length Tag Key: "packet_len"<packet_len
500 = 50 ms for testing; 32 is sufficient
Stream to Tagged Stream
Packet Length: 32
Length Tag Key: "packet_len"<packet_len
Tagged Stream Mux
Length tag names: packet_len
Pack K Bits
K: 8
GMSK Mod
Samples/Symbol: sam...symbol/5
BT: 500m
Quadrature Demod
Gain: samp_rat...deviation_hz/1.1833
"OK to Block" = Yes (strictly !)
Audio Sink
Sample Rate: samp_rate=48k