Options

Title: MFSK Tra...key Signing
Author: gr-linux-crypto
Copyright: Copyright 2024
Description: MFSK ...ulation.
Output Language: Python
Generate Options: QT GUI

Variable

ID: samp_rate
Value: 48k

Sample rate for MFSK modulation

Variable

ID: symbol_rate
Value: 2.4k

Symbol rate for MFSK

Variable

ID: mfsk_bits_per_symbol
Value: 2

Bits per symbol (2 = 4-FSK, 3 = 8-FSK, 4 = 16-FSK)

Vector Source

Vector: [ord(c) for c in m...
Tags:
Repeat: No

Nitrokey Interface

Slot Number: 1
Auto Repeat: False

in · out

Load Ed25519 private key from Nitrokey slot for signing

Nitrokey gr-nacl MFSK Signer

in · in · out

Chunks to Symbols

Symbol Table: 0, 1, 2, 3
Dimension: 2

in · out

Convert signed message bytes to symbols for MFSK modulation

set_symbol_table

Frequency Mod

Sensitivity: 314.159m

in · out

MFSK modulator - frequency shifts based on symbol values

Throttle

Sample Rate: 48k
Limit: None

in · out

File Sink

File: ...ned_transmission.bin
Unbuffered: Off
Append file: Overwrite

in

Save MFSK modulated signal to file (can be transmitted or analyzed)

QT GUI Time Sink

Name: Signed Message
Number of Points: 1.024k
Sample Rate: 48k
Autoscale: Yes

in

Visualize signed message data (before modulation)

QT GUI Frequency Sink

Name: MFSK Spectrum
FFT Size: 1024
Center Frequency (Hz): 0
Bandwidth (Hz): 48k

in

Visualize MFSK modulated signal spectrum

QT GUI Entry

ID: nitrokey_slot
Label: Nitrokey Slot
Default Value: 1

Nitrokey slot number (0-15) containing Ed25519 private key

QT GUI Entry

ID: message_text
Label: Message to Transmit
Default Value: Hell...trokey.

Message to transmit (will be signed before MFSK modulation)