

# Project Report

author

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## 1 Workload

Function	Workload	Contributor
Source	Text string (TXT), Image (PNG), Audio (WAV)	Chenye
Encoder	(7, 4) Systematic Linear Block (Hamming) Code CRC	Chenye name
Channel	Binary Symmetric Channel (BSC) with adjustable error probability	Chenye
Error Corrector	Syndrome Lookup Table for (7, 4) Hamming Code CRC	Chenye name
Decoder	(7, 4) Systematic Linear Block (Hamming) Code CRC	Chenye name
Destination	Text string (TXT), Image (PNG), Audio (WAV)	Chenye

## 2 Results

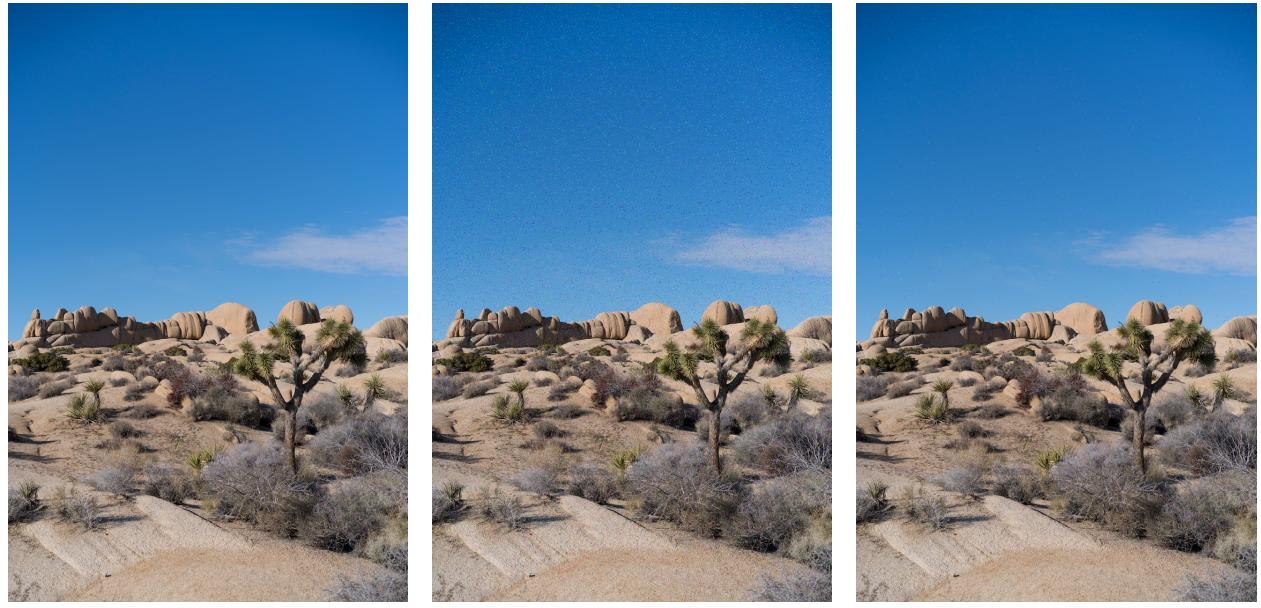
### 2.1 (7,4) Hamming Code

#### 2.1.1 Text string

Original	Without correction	Corrected
Hello World! EEC269A Error Correcting Code Demo	Hello World! EEC269A Drror Correcting(CoDe(Dmmo	Hello World! EEC269A Error Correcting Code Demo

#### 2.1.2 Image

#### 2.1.3 Audio

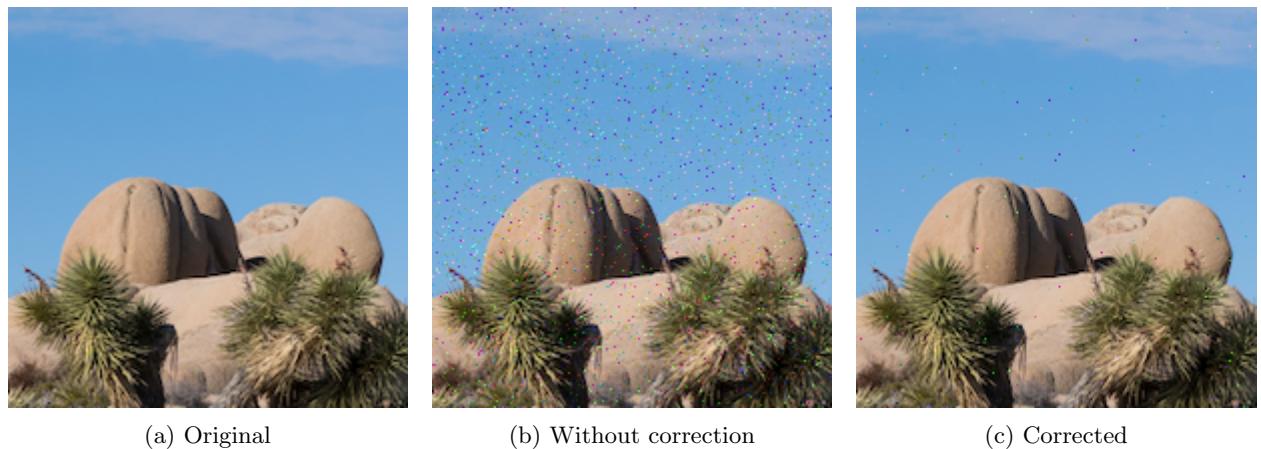


(a) Original

(b) Without correction

(c) Corrected

Figure 1: Image encoded with Hamming passed through BSC (entire)



(a) Original

(b) Without correction

(c) Corrected

Figure 2: Image encoded with Hamming passed through BSC (details)

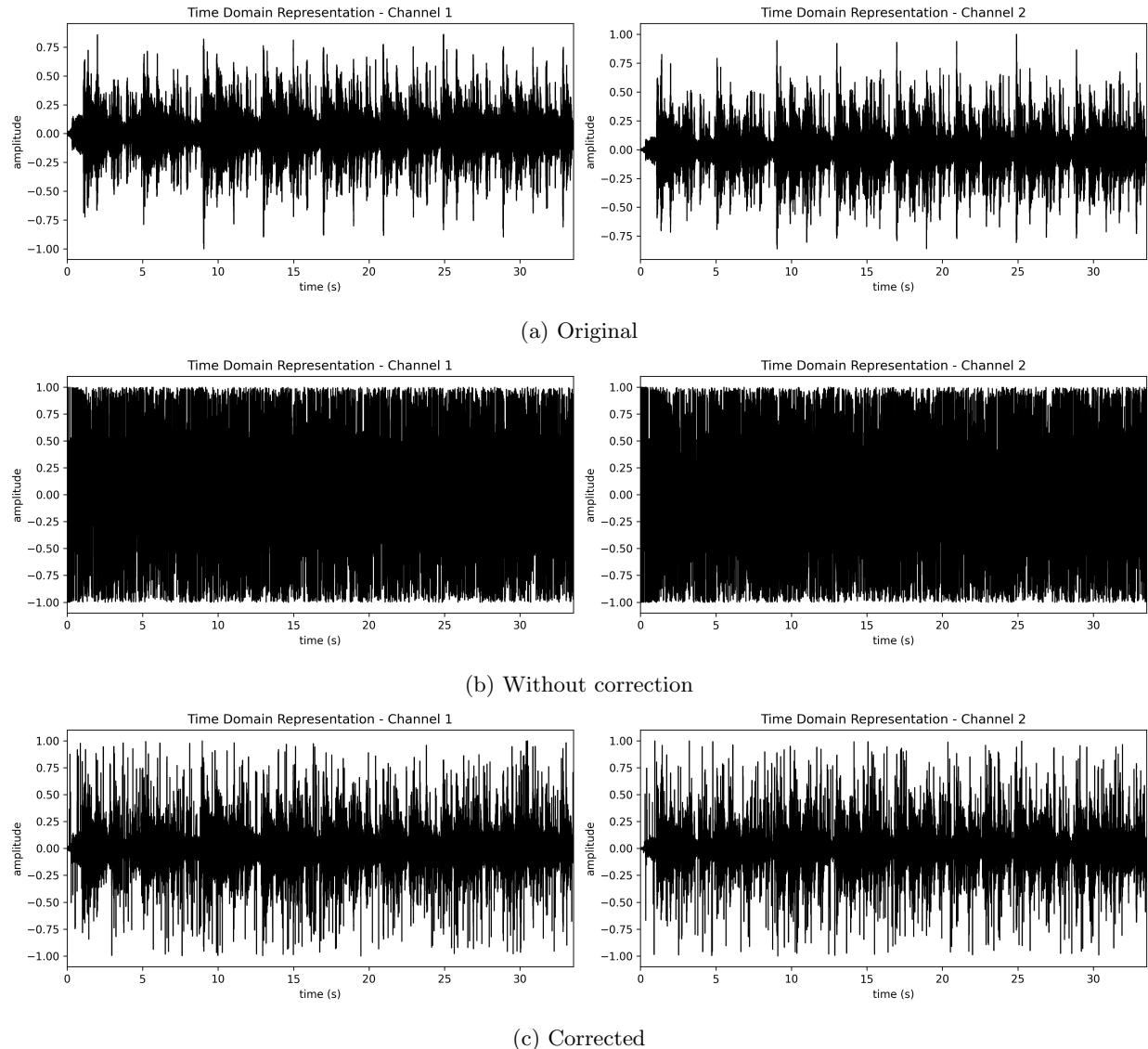


Figure 3: Audio encoded with Hamming passed through BSC

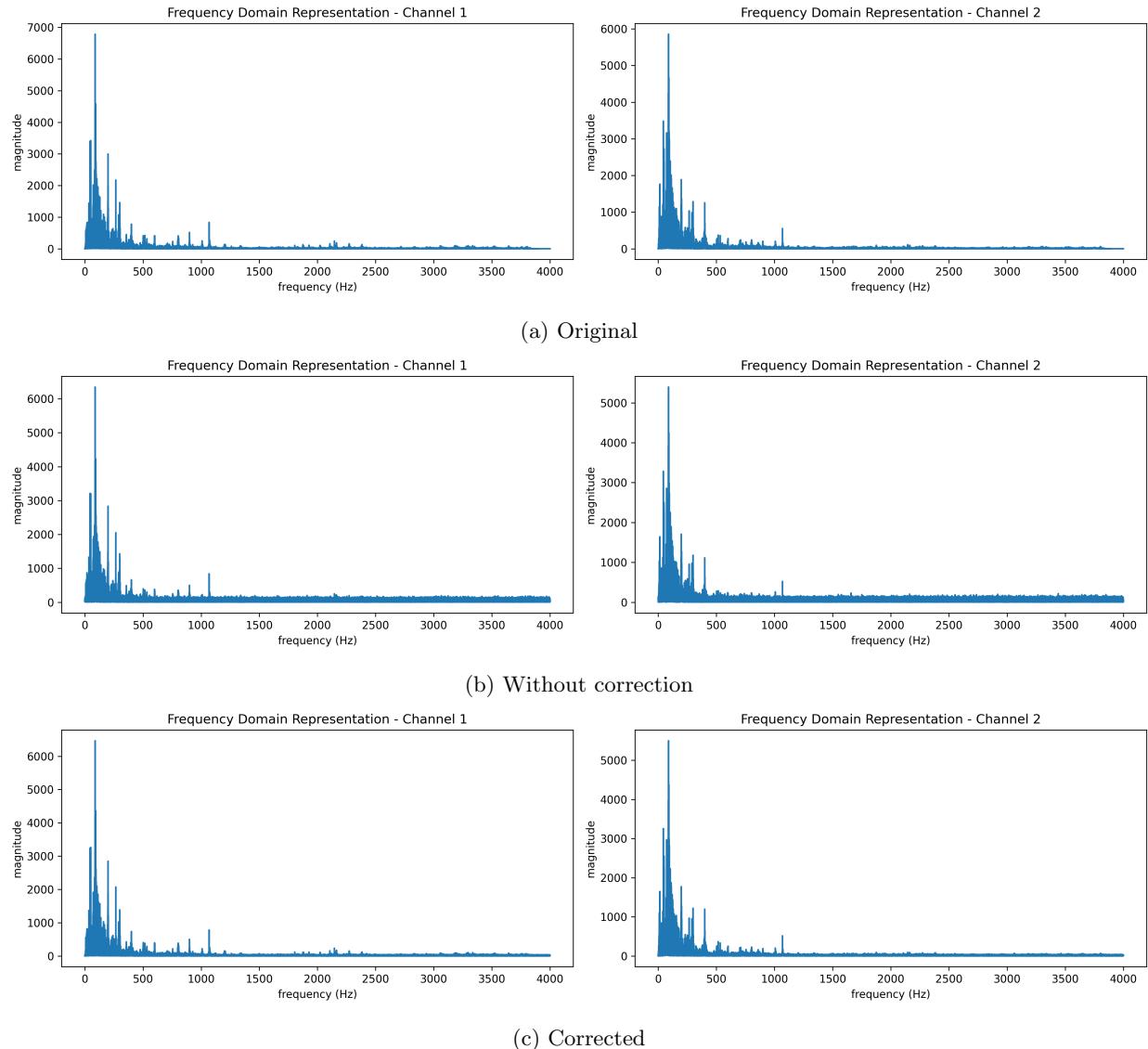


Figure 4: Audio encoded with Hamming passed through BSC