

Study of two Raspberry Pis and Power adapters

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1 Raspberry Pi and Power Adapters

Two raspberry pis and two adapters and two power-cables were used for measuring EMI on channel and the document shows how the EMI generated is distinct to the extent, that one 3a doesn't produce any EMI while other one 3b does.

1. Raspberry Pi Model B + V1.2 (Fig 3a)
2. Raspberry Pi 3 Model BV1.2 (Fig 3b)
 1. Powerchord 1 (Fig 4a) using a USB cable
 2. Powerchord 2 (Fig 4b) usual usual cable (non-USB)

1.1 Compare EMI of two power adapters

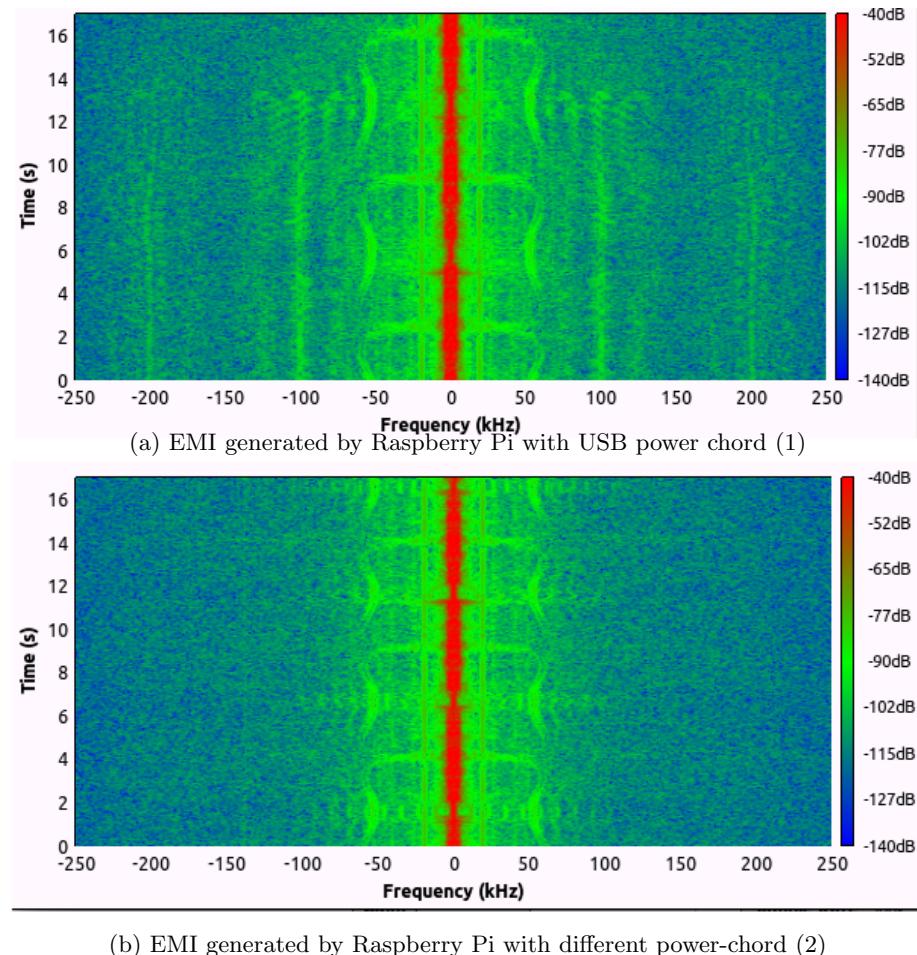


Figure 1: Same Raspberry Pi-2 shows two different EMI signatures for two different power-chords

1.2 Compare EMI of two Raspberry Pis

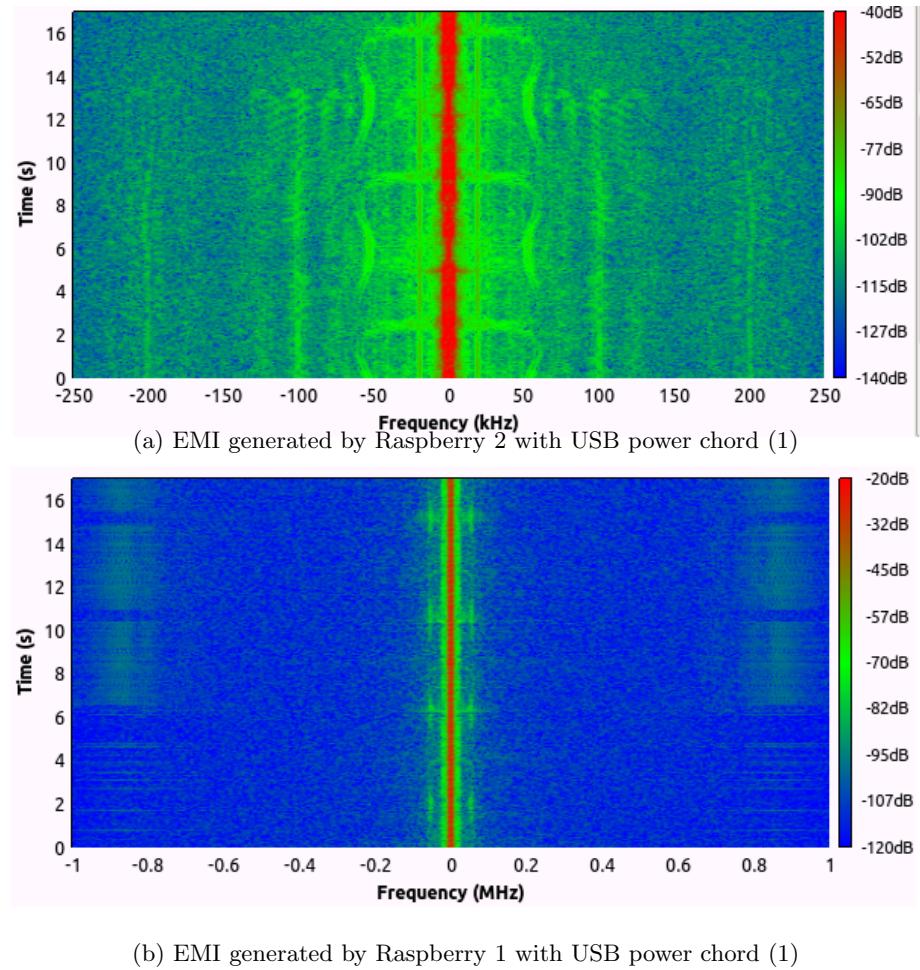
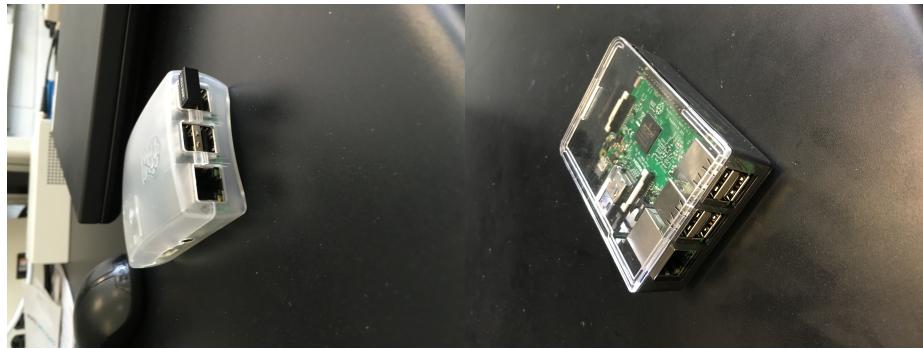


Figure 2: Two different Raspberry Pi using the same power chord but have different EMI signatures

2 Miscellaneous

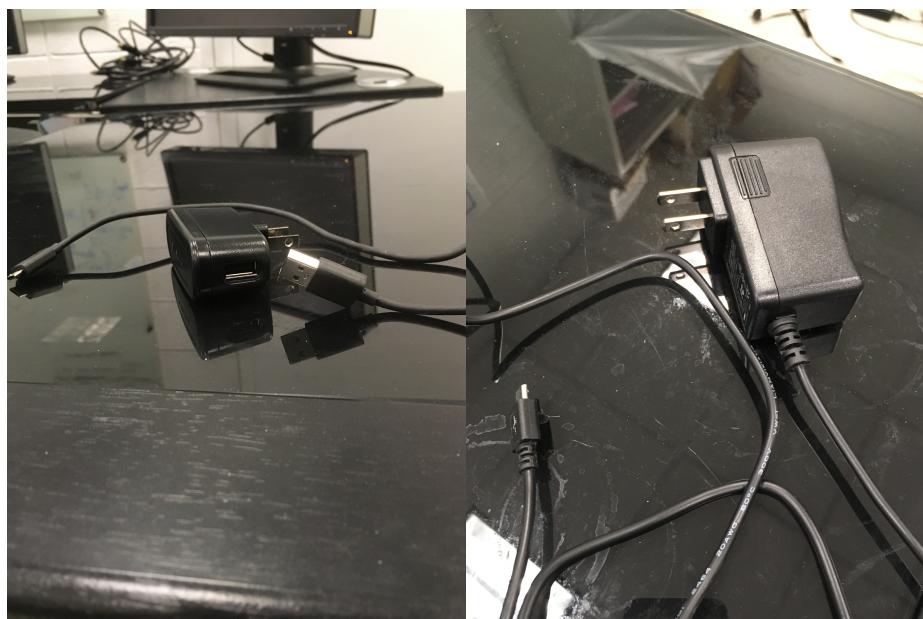
The Raspberry Pis are shown below

The Powerchords are displayed below, first one showing a USB socket and the second one showing the usual chord.



(a) Raspberry 1 (Raspberry Pi)

(b) Raspberry 2 (Raspberry Pi 3)



(a) Powerchord 1

(b) Powerchord 2