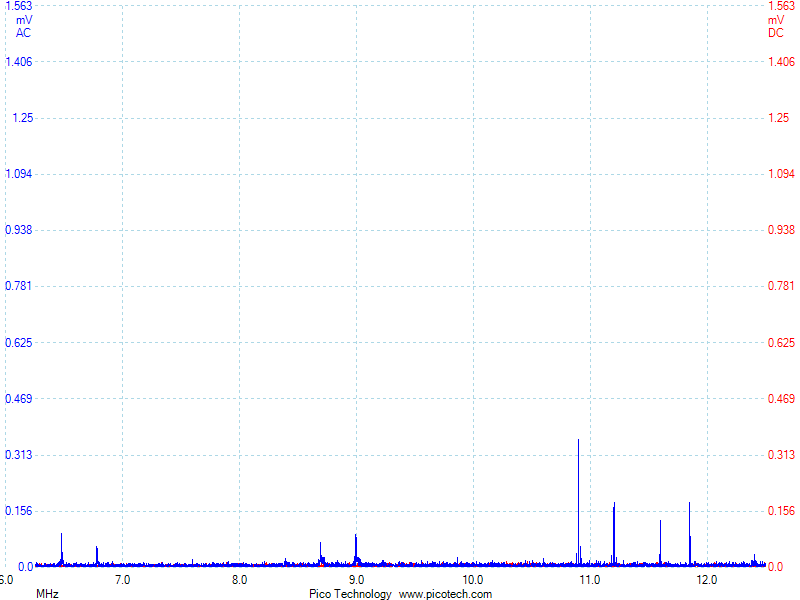
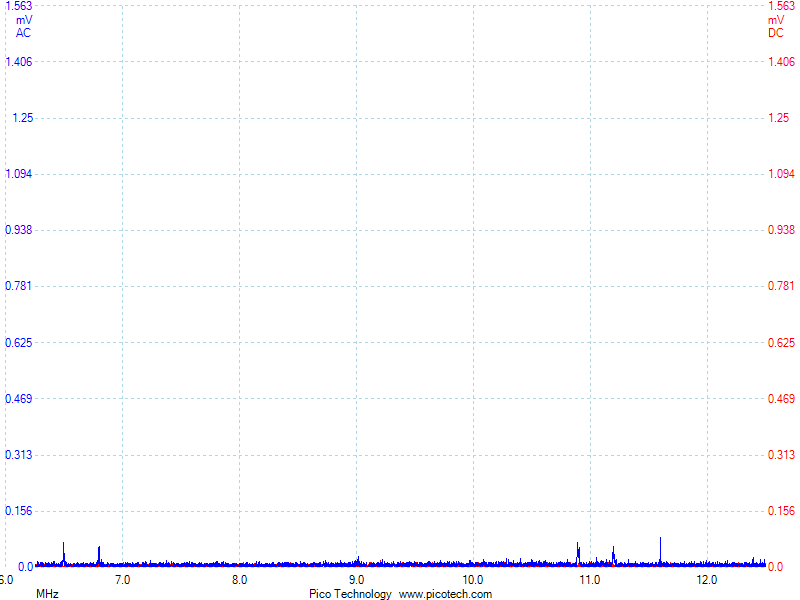
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Artist** | **Original Audio** | | | | **Telephone** | | | | **AM Radio** | | **DAB Radio** | | **FM Radio** | |
|  | Signal Bandwidth | | % of Original | | Signal Bandwidth | | % of Original | | Signal Bandwidth | % of Original | Signal Bandwidth | % of Original | Signal Bandwidth | % of Original |
| Antonio Vivaldi | 15KHz | | 100% | | 3.2KHz | | 21% | | 7KHz | 47% | 15KHz | 100% | 15KHz | 100% |
| Dave Brubeck | 20.5KHz | | 100% | | 3.5KHz | | 17% | | 7.2KHz | 64% | 15KHz | 73% | 15KHz | 73% |
| Enid Blyton | 16KHz | | 100% | | 3.5KHz | | 22% | | 7.2KHz | 45% | 15KHz | 94% | 15KHz | 94% |
| Nickelback | 21KHz | | 100% | | 3.5KHz | | 17% | | 7.2KHz | 34% | 15KHz | 71% | 15KHz | 71% |
| **Signal - Oscilloscope View** | | **Signal - Spectrum View)** | | **Peak to Peak Voltage** | | **Frequency** | | **Equation** | | | | | | |
| [Signal α](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/PicoScopeFiles/OscilloscopeSignalA.psdata) | | [Signal α](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/PicoScopeFiles/SpectrumSignalA.psdata) | | 10v | | 0.5 ms | | f(t) = 10v sin (2.π.0.5ms.t) | | | | | | |
| [Signal β](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/PicoScopeFiles/OscilloscopeSignalB.psdata) | | [Signal β](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/PicoScopeFiles/SpectrumSignalB.psdata) | | 3.25v | | 0.16 ms | | f(t) = 3.25v sin (2.π.0.16ms.t) | | | | | | |
| [Signal γ](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/PicoScopeFiles/OscilloscopeSignalC.psdata) | | [Signal γ](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/PicoScopeFiles/SpectrumSignalC.psdata) | | 2v | | 0.1 ms | | f(t) = 2v (2.π.0.1ms.t) | | | | | | |
| [Signal δ](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/PicoScopeFiles/OscilloscopeSignalD.psdata) | | [Signal δ](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/PicoScopeFiles/SpectrumSignalD.psdata) | | 10v | | 0.25 ms | | f(t) = 10v sin (2.π.0.23ms.t) | | | | | | |

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| --- | --- | --- | --- |
| **Signal** | **Time Domain** | **Frequency Domain** | **Transmission Bandwidth** |
| Sine |  |  | 8khz |
| Square - This represents Data. |  |  | 48.8khz |
| Audio -  [How You Remind Me](http://staffweb.cms.gre.ac.uk/~sp02/Signals&Modulation/AudioFiles/Telephone/Nickelback%20-%20How%20You%20Remind%20Me%20-%20POTS.wav) |  |  | 32khz |

|  |  |  |
| --- | --- | --- |
| Diode Direction | Diode | Diode |
| Time Domain |  |  |
| Frequency Domain |  |  |

|  |  |
| --- | --- |
| Carrier Frequency | Transmission Identity |
| 5.1 MHz | Government Use, NATS data link with Ireland |
| 2.2 MHz | Government Use, Aeronautical mobile |
| 8.1 MHz | Government Use, Maritime mobile |
| 10.85Mhz | Government Use, Land mobile. |



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