Carrier-ID…

…and the Interference Mitigation Process

Satellite Interference Reduction Group

Stop Interference Now
it's a SIN

Carrier ID (CID)

- One of the many ways to mitigate Harmful Interference
- Applies specifically to DVB broadcast
- Can be extended to other domains
- As good as the data stored

Carrier-ID Recent Milestones

Digital Video Broadcasting

DVB Document A164 (2013-03)

World Class Standards

ETSI TS 103 129 V1.1.1 (2013-05)

DVB CID Scope

- ... describes the modulation, channel coding and signalling protocol system intended for the identification of the host carrier it belongs to.
- ... uses Binary Phase Shift Keying (BPSK) spread spectrum modulation, differential encoding, scrambling and a concatenated error protection strategy based on repetition, CRC and BCH codes.

DVB CID Global Unique Identifier

- The 64-bit DVB CID Global Unique Identifier is based on a 64-bit extended unique identifier and sent in two parts of 32 bits.
  - 48 bit MAC address
  - 48 bit Space Data Association (SDA) modulator identifier

http://www.space-data.org/sda/

DVB CID Content ID

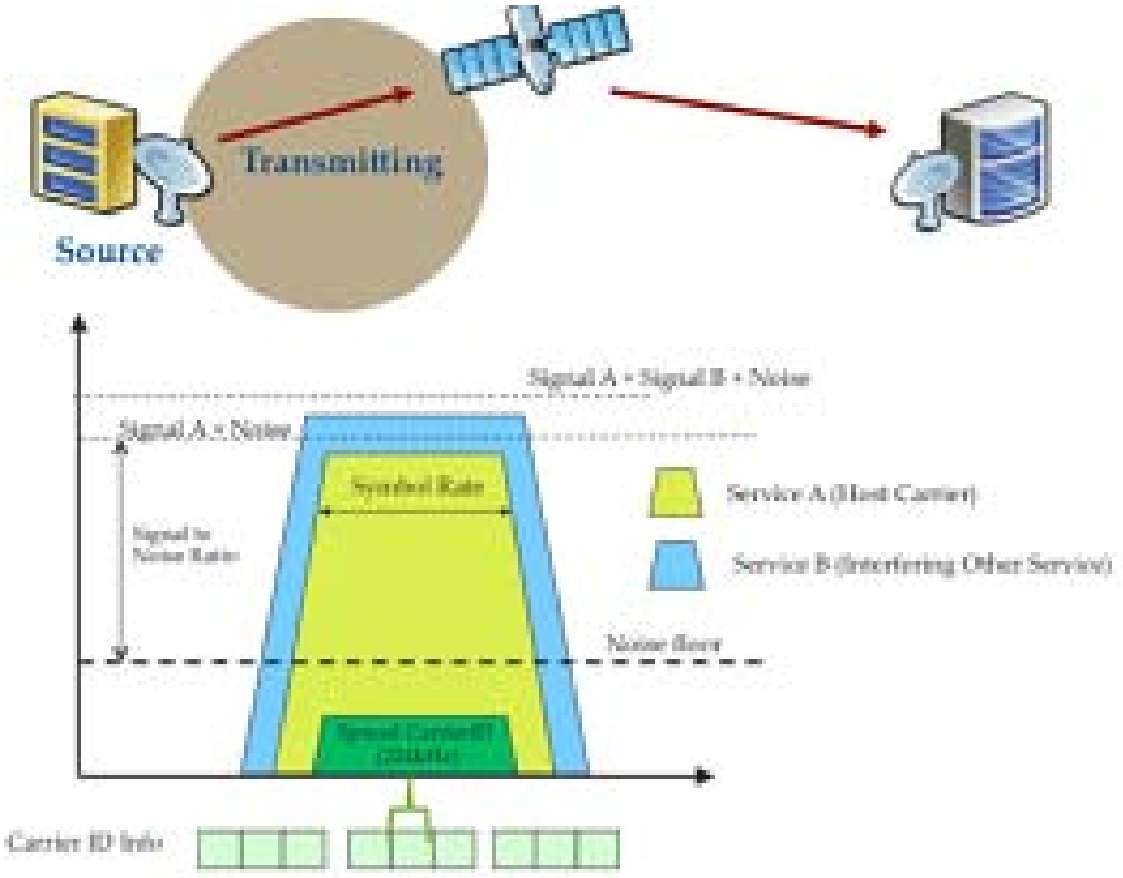
- 0 CID Format
- 1-2 Latitude and Longitude
- 3-5 Telephone
- 6-12 User Data
- 13-31 Undefined

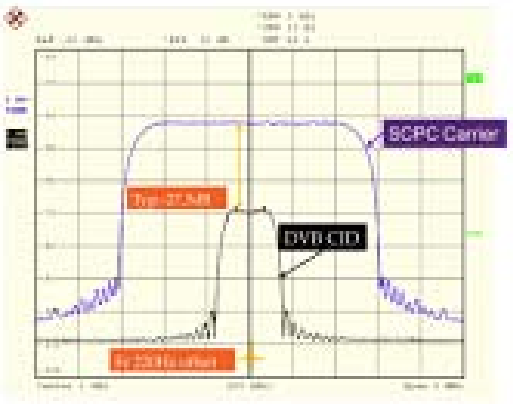
Degradation of the Host Carrier

- To maintain a fixed transmit power, the Host Carrier power is decreased by the CID signal power.
- The CID signal power acts as an interferer to the Host Carrier signal.

Ignore the first being the second an order of magnitude higher.

CID Below Transponder Noise Floor

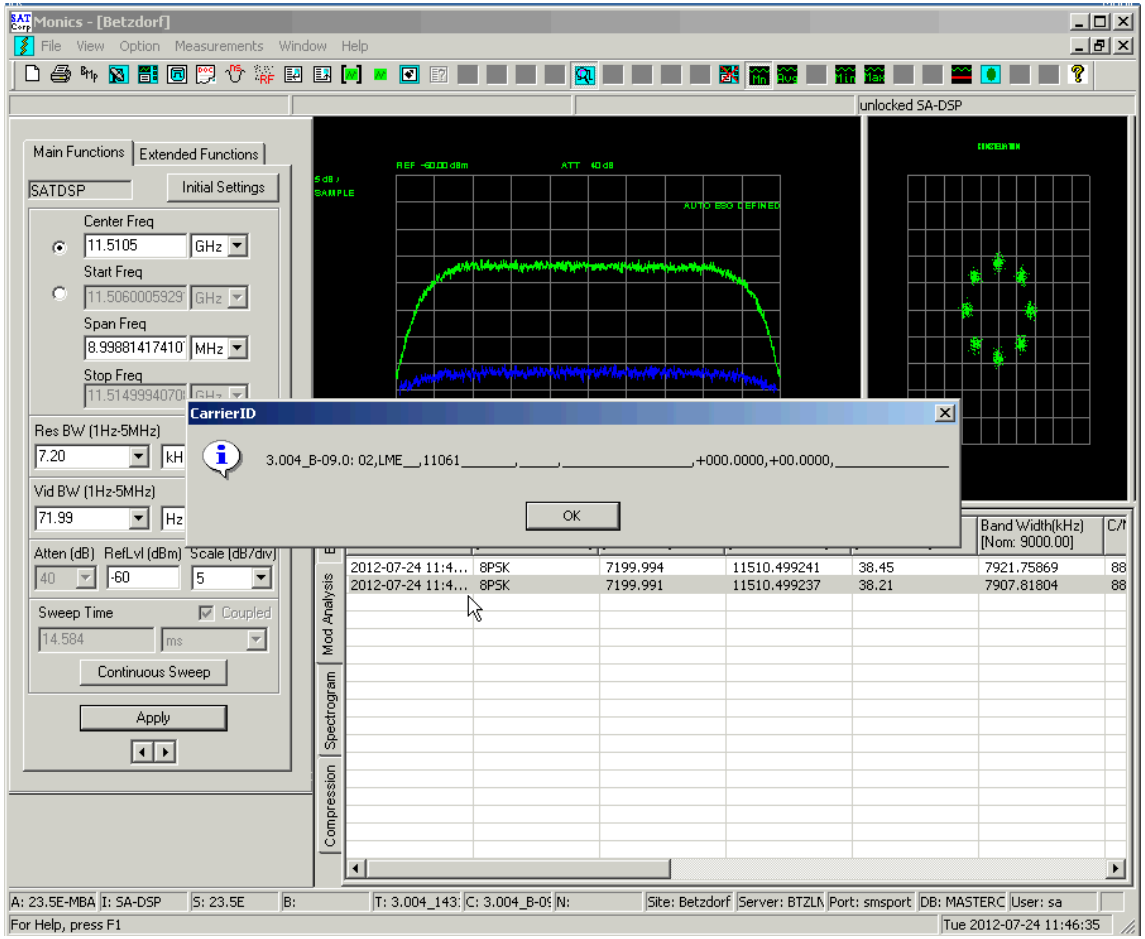




courtesy of

Newtec

CID Practical Application



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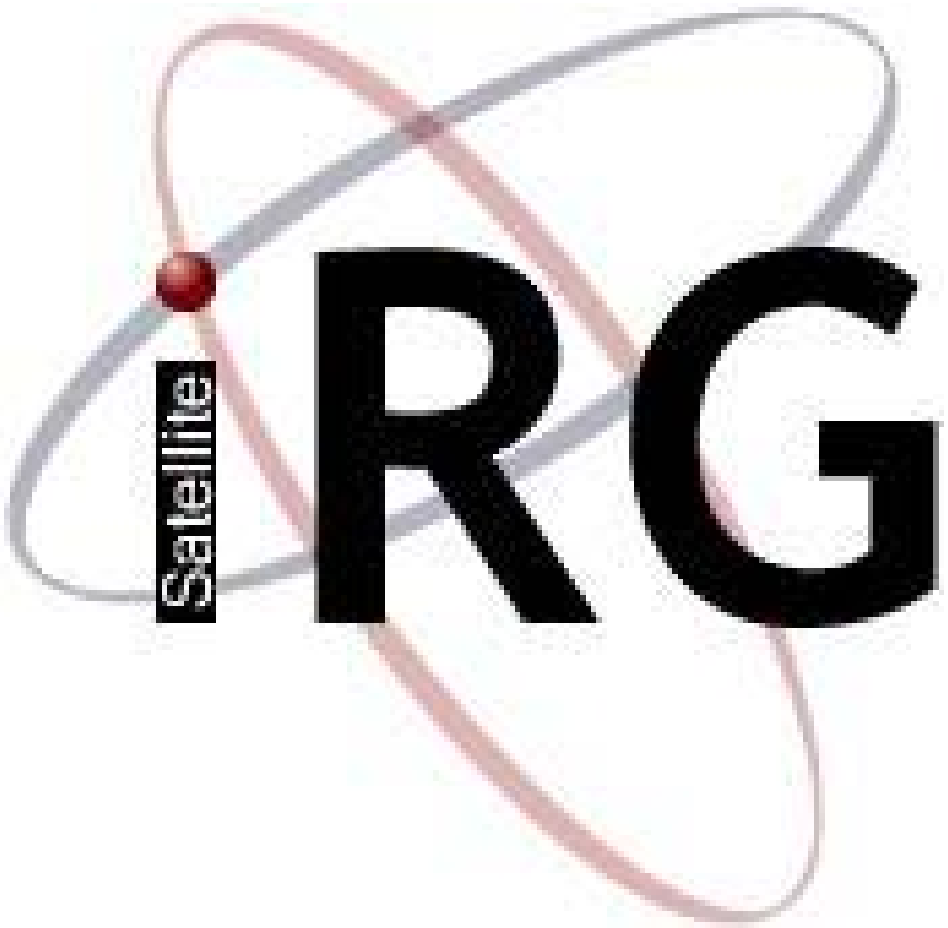
For More Information



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