

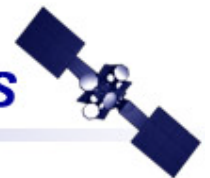


Satellite Users Interference Reduction Group

from the Interference Source Identifier Forum...

Video Carrier ID Project

Stopping Interference Before It Starts



Martin Coleman: Director, Colem Communications Ltd.
Presented by Adam Edwards, SUIRG

www.colemspice.com

ColemSpice
TECHNOLOGY INNOVATION

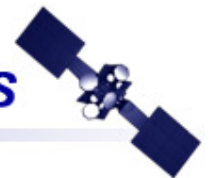


Critical Milestones achieved...

Satellite Users Interference Reduction Group

- **Original Demonstration - 7th December 2006**
- **Video Specification (V1.0) issued - January 2007**
- **Formal notification issued from WBU ISOG - June 2008**
- **Carrier ID Forum – Washington DC – 18th November 2009**
- **Working Groups for Video, Data & VSAT setup**
- **Video Specification (V2.0) issued - 22nd December 2009**
- **All Video Encoder & Modulator Manufacturers contacted then visited at NAB 2010**

Stopping Interference Before It Starts





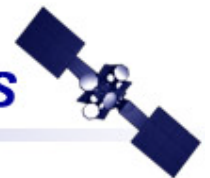
Manufacturer Status (Video)...

Satellite Users Interference Reduction Group

Based on findings from NAB 2010...

- **Ericsson E5700 & EN8000 Encoders by Q2 2010 (V2.0)**
- **Ericsson EN81x0 & Modulators by Q1 2011 (V2.0)**
- **Harmonic – Complete and Ready (V1.0)**
- **All Vislink Products – Complete & Ready (V1.0)**

Stopping Interference Before It Starts





Manufacturers committed to ID...

Satellite Users Interference Reduction Group

Expected completion for All...

Q1 2011

Lead...

Ericsson
Harmonic (Scopus)
Vislink

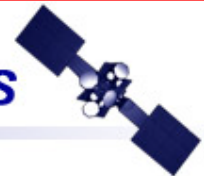
Support/In Progress...

ATEME
CISCO
Fujitsu Media Solutions
HaiVision
Harris Corp
IDC (Tiernan)
Motorola
Newtec (Modulators)
NTT
Sencore

Support/Waiting for Update...


Adtec
DARIM
Envivio
Grass Valley
Hitachi – Chicago
Streambox
Sumavision
Telairity

Stopping Interference Before It Starts





Detection...

courtesy
of...  INTEGRAL
SYSTEMS

Satellite Users Interference Reduction Group

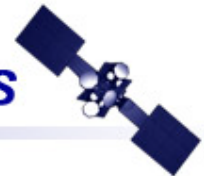
December 2006 at ITU/ISOG demonstrated that it was possible to capture the NIT table in a DVB-S2 stream and read it...

...the Link encoder used was sending NIT every 3 seconds

At the Hong Kong SUIRG Conference (2007) the conclusion of working group on Carrier ID was that it was possible for modern digital CSM systems to capture defined words in a video data stream.

Therefore, no technical reason for not implementing Video Carrier ID.

Stopping Interference Before It Starts



Martin Coleman: Director, Colem Communications Ltd.
Presented by Adam Edwards, SUIRG


www.colemspice.com  ColemSpice
TECHNOLOGY INNOVATION



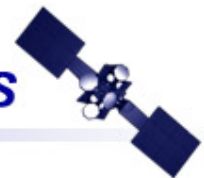
Detection (continued)...

courtesy of...  INTEGRAL SYSTEMS

Satellite Users Interference Reduction Group

- Already proved  Monics™ can read the NIT in a DVB stream
- Modulation analysis measurements already read headers and magic words to...
 - read RS codes
 - obtain modulation information of the upcoming packet
- To read a word that is a unique identifier should not be an issue
- Existing hardware can be used
 - Concerns are how often in ID repeated
 - Must be a standard across all manufacturers
 - Must be outside of proprietary IP such as FEC (as NIT and Magic words are now)
 - ID can be a subcarrier (i.e. carrier under a carrier)

Stopping Interference Before It Starts





Detection Method...

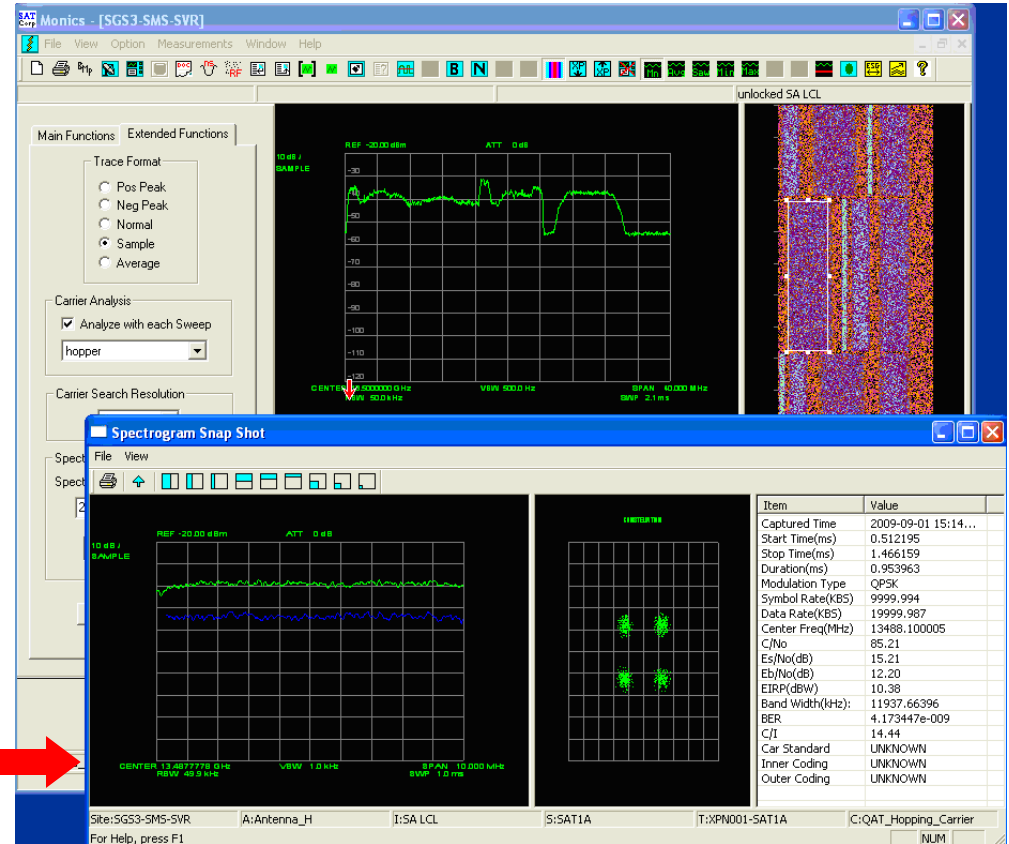
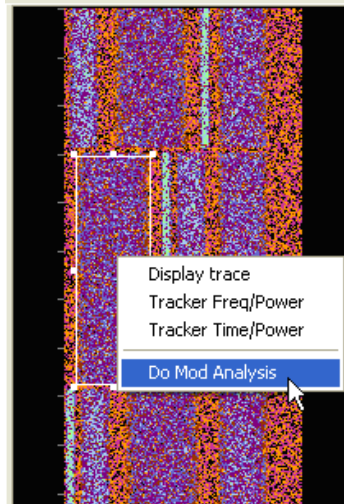
courtesy of...  INTEGRAL SYSTEMS

Satellite Users Interference Reduction Group

Modulation Analysis on Burst...

A burst can be selected within a CSM system

If the burst can be analyzed for modulation & Interference then a Carrier ID word can be read



Stopping Interference Before It Starts



Martin Coleman: Director, Colem Communications Ltd.
Presented by Adam Edwards, SUIRG

www.colemspice.com

 ColemSpice
TECHNOLOGY INNOVATION



Where are we?

Satellite Users Interference Reduction Group

All applicable Video Encoder & Modulator Systems to be

CARRIER ID READY by Q1 2011

**Users & Operators being contacted to engage and ensure
their carriers have ID**

IBC 2010, Amsterdam to make the next push!

*Users already supporting and assisting in getting the ID message across
include...*

BSkyB, CNN, Reuters, SiSLive

Stopping Interference Before It Starts



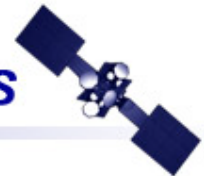


...Now?

Satellite Users Interference Reduction Group

- **“Carrier ID” is here to stay!**
- **All** Colem Management Systems are ID ready:
both Versions 1.0 & 2.0 – *Free of Charge!*
- Holkirk Communications (provider of SNG/FlyAway Terminals) now comply with current specifications;
- SiSLive already install V1.0 on all uPod and associated SiS Systems;
- **BSkyB** will upgrade all their transmissions with ID as soon as Encoder/Modulator manufacturers catch up;
- **Promote it, !!! - MAKE IT HAPPEN !!!!**

Stopping Interference Before It Starts





Special Thanks to:

Satellite Users Interference Reduction Group



part of



<http://www.colem.co.uk/>



part of



<http://www.linkres.co.uk>



<http://www.sat.com/>

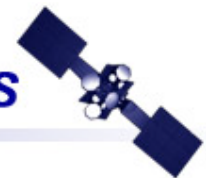


rebranded
from



<http://www.sislive.tv>

Stopping Interference Before It Starts



Martin Coleman: Director, Colem Communications Ltd.
Presented by Adam Edwards, SUIRG

www.colemspice.com

