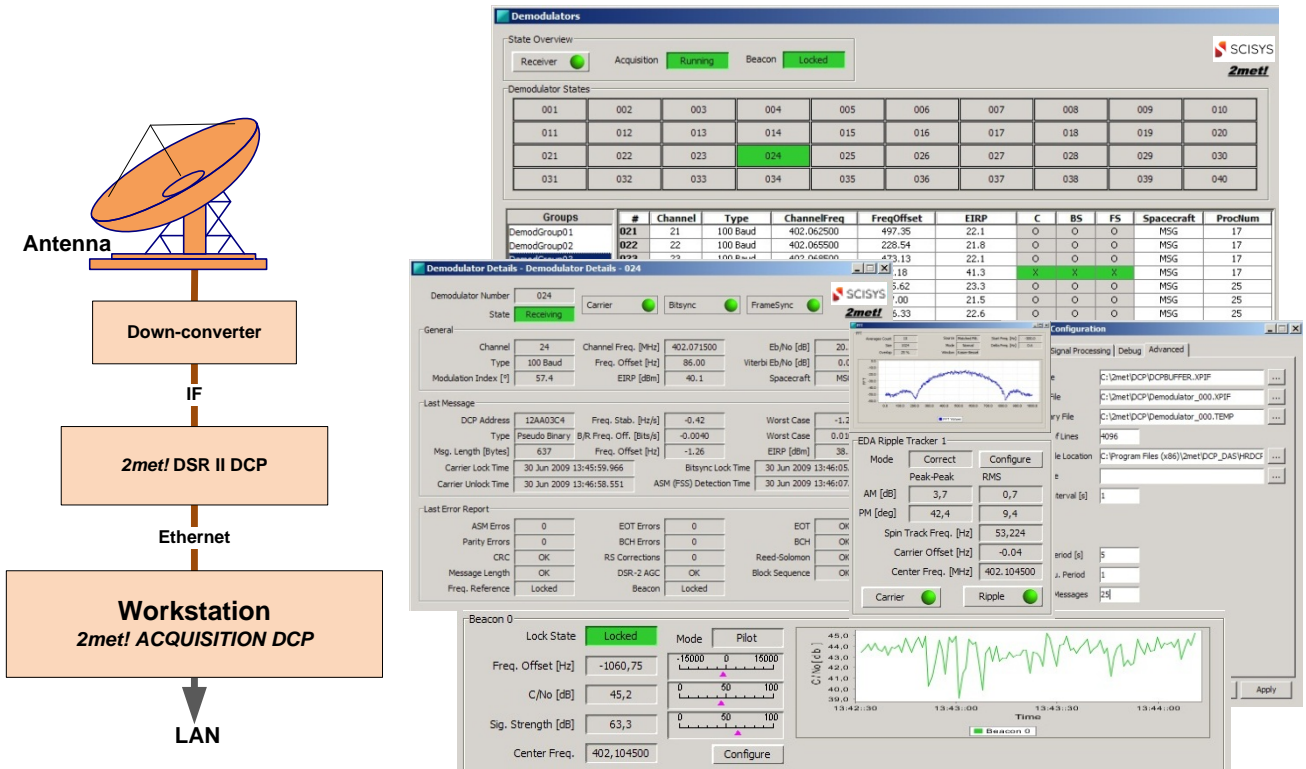


### 2met!® DRGS DCP DCP Direct Readout Ground Station

Release 1.2

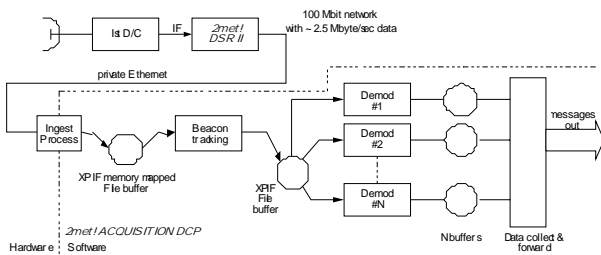
The SCISYS 2met!® DCP Direct Readout Ground Station includes the digital receiver 2met!® DSR II and a workstation and software.



FUNCTIONS	ADVANTAGES
<ul style="list-style-type: none"> <li>▪ Simultaneous reception of up to 32 DCP channels with one PC</li> <li>▪ Real-time acquisition of all channels</li> <li>▪ Automatic reception quality control</li> <li>▪ Dispatch of messages via LAN</li> <li>▪ User friendly graphical interfaces and MMIs</li> <li>▪ Low technical losses of demodulators</li> <li>▪ Configurable demodulator characteristics for individual adaptation to all DCP transmitters</li> <li>▪ Multiple beacon support</li> <li>▪ Automatic EDA ripple tracking</li> </ul>	<ul style="list-style-type: none"> <li>▪ Expansion to more channels</li> <li>▪ Extendibility by adding PC's only</li> <li>▪ Scalable standard hardware platform</li> <li>▪ Low training/maintenance effort</li> <li>▪ Reduced number of system parts</li> <li>▪ Highest reliability at excellent price-performance</li> <li>▪ Demodulation completely implemented in SW</li> <li>▪ Runs on Windows XP / 7 Platform</li> <li>▪ HRDCP on MSG and MTP</li> <li>▪ Time and frequency domain debug interfaces</li> </ul>

### Description

The 2met!® DRGS DCP has been designed to provide state of the art technology capable of receiving data from all current METEOSAT or GOES DCP channels. The design of this station is based on only one dedicated HW component, the 2met!® DSR II. Antenna, feed and down-converter are standard for L Band reception. Most of the DCP functions are implemented in software.



This design allows easy and cost effective up-grade to a multi channel system just by adding standard PCs and 2met!® Acquisition DCP software licenses. The 2met!® DRGS DCP is designed against worst-case specifications to allow proper operations under all circumstances for all data rates from 100 to 2400 Baud.

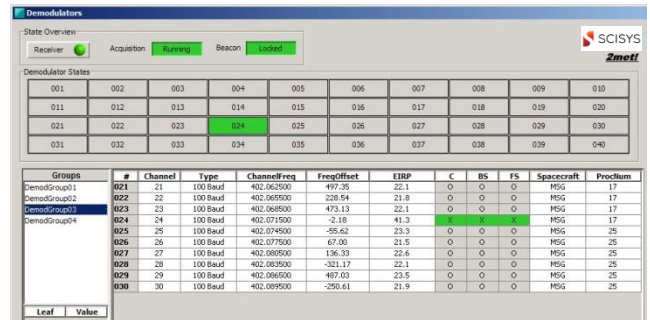
### Hardware

A typical DRGS system consists of antenna, feed, LNA/Downconverter and the dedicated SCISYS Digital Satellite Receiver 2met!® DSR II providing the functionality of a complex analogue to digital converter. The output of the receiver is a stream of 16 bit I/Q complex samples at 500kHz sample rate resulting in about 2.5MB/s network transfer including some monitoring data and time stamping. The receiver is connected to a standard PC via a fast ethernet interface. None of the HW components needs any maintenance or adjustment during normal operations.



### Software

The 2met!® Acquisition DCP Software comes with everything you need: High reliability at affordable price. User friendly graphical MMIs will allow to use and set-up the system without long training phases and to reduce management overhead.



Demodulator States	001	002	003	004	005	006	007	008	009	010
011	012	013	014	015	016	017	018	019	020	
021	022	023	024	025	026	027	028	029	030	
031	032	033	034	035	036	037	038	039	040	

Groups	#	Channel	Type	ChannelFreq	FreqOffset	EIRP	C	BS	FS	Spacecraft	Proctum
DemodGroup01	0021	21	100 Baud	402.062500	497.35	22.1	0	0	0	MSG	17
DemodGroup02	0022	22	100 Baud	402.069500	228.94	21.8	0	0	0	MSG	17
DemodGroup03	0023	23	100 Baud	402.069500	473.12	22.1	0	0	0	MSG	17
DemodGroup04	0024	24	100 Baud	402.071500	-2.18	41.3	x	x	x	MSG	17
	0025	25	100 Baud	402.074800	-58.62	23.3	0	0	0	MSG	25
	0026	26	100 Baud	402.077500	67.00	21.5	0	0	0	MSG	25
	0027	27	100 Baud	402.080500	136.33	22.6	0	0	0	MSG	25
	0028	28	100 Baud	402.083900	-321.17	22.1	0	0	0	MSG	25
	0029	29	100 Baud	402.086600	487.03	23.5	0	0	0	MSG	25
	0030	30	100 Baud	402.089500	-250.61	21.9	0	0	0	MSG	25

The Demodulator modules with Beacon Tracking are realised completely in software. The application includes channel selection and frequency correction as well as matched filtering, AGC and timing correction. The channel selection can be easily performed by a control MMI. The status of each demodulator and the beacon are displayed on a monitoring MMI. The DCP Message Data can be retrieved via a standard TCP/IP socket interface. Support for multiple pilot tones is provided as well as automatic removal of phase and amplitude ripple induced by the EDA effect of spinning satellites.

### Options

The DCP Message Interface can be adapted to customer specific needs on request. A Channel Scheduler is optionally available. The scheduler will switch each Demodulator according to a user defined schedule. Herewith, it is possible to increase the number of "monitored" DCP channels virtually to much more DCP channels. Using optional Analysis Tools the system can be used for detailed monitoring of DCP channels.

### Ordering Information

2met!® DRGS DCP including 2met!® DSR II and 2met!® Acquisition DCP

This version provides all functions to receive DCP data from all relevant geostationary missions.

### Contacts

If you have any questions, please contact our Marketing and Sales Department at 2met!@scisys.de



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