## **ZODIAC DATA SYSTEMS GMBH**

## Technical Specification HEIM DATaRec<sup>a</sup> 4 Link Modules Overview



LMF2FE+Rec+LEMO

## General

The HEIM DATaRec 4 Series represents a total modular data acquisition and signal conditioning concept which can be tailored to various applications. The HEIM DATaRec 4 Link Module is the central processing module and is used to create a single datastream from multiple signal interface subsystems.

Since the Link Module provides the time basis for the connected Signal Modules a high precision synchronisation of all signals is always guaranteed. Furthermore the Link Module controls the calibration, the phase alignment, and gives build in test (BIT) options for the whole system during setup of a new system configuration or normal operation. The modular design provides the basis to configure large multi channel systems as well as small systems for mobile applications. The HEIM DATaRec 4 Series is the result of a continuous and consequent development of data acquisition systems. Many years of expertise and experience in both the automotive as well as the flight test market have been the starting point for the development of the new family incorporating state of the art technology.

HS300-0100/0	LMF2FE
Module data rate	600 Mbit/s
Interface data rate	
Gbit Ethernet	max. 600 Mbit/s
UDP Broadcast	max. 500 Mbit/s
IEEE 1394b	max. 180 Mbit/s
USB 2.0	max. 200 Mbit/s
Operating mode	front end
HeimLink chains	2

HS300-0100/1	LMF2FE+REC	
Module data rate	600 Mbit/s	
Interface data rate Gbit Ethernet UDP Broadcast IEEE 1394b USB 2.0 Front end mode Standalone mode	max. 600 Mbit/s max. 500 Mbit/s max. 180 Mbit/s max. 200 Mbit/s max. 80 Mbit/s	
Operating mode	front end standalone recorder	
Heiml ink chains		
	2	
HS300-0200/0	LMF4FE	
HS300-0200/0	LMF4FE	
HS300-0200/0 Module data rate Interface data rate Gbit Ethernet UDP Broadcast IEEE 1394b	LMF4FE 600 Mbit/s max. 600 Mbit/s max. 500 Mbit/s max. 180 Mbit/s	

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## Technical Specification HEIM DATaRec<sup>®</sup> 4 Link Modules Overview

HS300-0120/0	LMF2FE+REC+LEMO	HS610-3001/1	LMFGSS
Module data rate	600 Mbit/s	Module data rate	650 Mbit/s
Interface data rate		Interface data rate	
Gbit Ethernet	max. 600 Mbit/s	Gbit Ethernet	max. 650 Mbit/s
UDP Broadcast	max. 500 Mbit/s	UDP Broadcast	max. 500 Mbit/s
IEEE 1394b	max. 180 Mbit/s	IEEE 1394b	max. 180 Mbit/s
USB 2.0		USB 2.0	max. 200 Mbit/s
Front end mode	max. 200 Mbit/s		
Standalone mode	max. 80 Mbit/s	Operating mode	front end
Interface to DATaRec 4		HeimLink chains	2
SMM Storage Modules	200 Mbit/s		
		External time	IRIG A, B, G; GPS
Operating mode	front end	LMF-Syncinterface	Syn. of up to 3 LMFGSS
	standalone recorder		Modules
HeimLink chains	2	Notes	
External time Contact remote interface	IRIG A, B, G; GPS	Performance varies depending on the installation environment. The shown values were measured using an appropriately designed tes system under nominal conditions of temperature, voltage, etc	
HS300-0220/0	LMF4FE+REC+LEMO	Performance is significantly i	influenced by storage medium type
Module data rate	600 Mbit/s	host computer performance and load, used acquisition software an signal module configuration.	
Interface data rate			
Gbit Ethernet	max. 600 Mbit/s	This overview is for general guidance only.	
UDP Broadcast	max. 500 Mbit/s	There is detailed information available for each individual	
IEEE 1394b USB 2.0	max. 180 Mbit/s	interface module. Please conta	act ZODIAC Data Systems GmbH.
Front end mode	max. 200 Mbit/s		
Standalone mode	max. 80 Mbit/s		
Interface to DATaRec 4			
SMM Storage Modules	200 Mbit/s		
Operating mode	front end standalone recorder		
HeimLink chains	4		
External time	IRIG A, B, G; GPS		
Contact remote interface			

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**Applications** 



Miniature system

Single module system with direct link to the PC via USB 2.0



Compact system Centralized acquisition system with up to 768 channels



GSS base system, up to six internal Signal Modules



Distributed data acquisition system Remotely located modules (up to 768 channels)



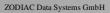
Distributed multi channel system Remotely located groups of modules (up to 768 channels)



Decentralized system Base system, module extender and external storage

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