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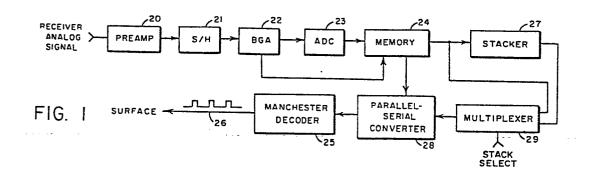
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- (54) A method and system of data transmission for a borehole logging tool.
- 67) A borehole logging system employs a transmitter of samples the analog signal and an analog-to-digital converter traveling from the transmitter to the receiver through the stored in a memory 24 and converted to a digital serial word moved through the borehole. A sample-and-hold unit 21 cable 26.

acoustic energy pulses and at least one receiver for produc- 23 produces a digital data word representative of the ing an analog signal representative of the acoustic pulses sampled analog signal. A plurality of digital data words are formation adjacent the borehole as the logging system is for transmission to the surface of the earth over the logging



## European Patent

## **EUROPEAN SEARCH REPORT**

EP 83 30 3309

	DOCUMENTS CONSI	DERED TO BE F	RELEVANT			
ategory	Citation of document with indication, where apport of relevant passages		ropriate,	Refevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)	
У	US-A-4 210 967 * Column 3, li line 51; colum figures 1,2 *	ine 30 - col		1-6	E 21 B 4 G 08 C 1 G 01 V	19/28
Y	US-A-4 214 231 * Column 3, li line 8; figures	ine 13 - col	umn 5,	1-6		
Y	GB-A-2 050 770	(SHELL)		1,2,4		
	* Page 2, line 1,2 *	es 61-128; f	igures	Ö		
Y	FR-A-2 306 489	 (SCHLUMBERG	ER)	1,2,4- 6		
	* Revendications 1-4; figure 3 *			TECHNICAL FIELDS SEARCHED (Int. Cl. 3)		
					CENTIONED (IIII	· ,
					E 21 B G 01 V G 08 C	
	The present search report has b	peen drawn up for all clair	ns			
Place of search THE HAGUE  Date of completion of the search 28-05-1985			Examiner WANZEELE R.J.			
Y : pa do A : te O : no	CATEGORY OF CITED DOCU articularly relevant if taken alone articularly relevant if combined we ocument of the same category chnological background on-written disclosure termediate document	vith another	E: earlier pate after the fil D: document L: document	ent document ing date cited in the ap cited for othe	rlying the invention , but published on, or oplication r reasons ent family, correspon	