



[54] **METHOD AND SYSTEM FOR REMOTELY MONITORING MULTIPLE MEDICAL PARAMETERS**

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4,981,141	1/1991	Segalowitz .	
5,307,817	5/1994	Guggenbuhl et al. .	
5,349,953	9/1994	McCarthy et al.	600/300
5,381,798	1/1995	Burrows .	
5,410,471	4/1995	Alyfuku et al.	600/300
5,415,181	5/1995	Hogrefe et al. .	
5,416,695	5/1995	Stutman et al.	600/300
5,421,343	6/1995	Feng .	
5,458,123	10/1995	Unger .	
5,462,051	10/1995	Oka et al.	600/300
5,536,084	7/1996	Curtis et al. .	
5,553,609	9/1996	Chen et al.	600/300
5,576,952	11/1996	Stutman et al.	600/300
5,617,871	4/1997	Burrows	600/300
5,619,991	4/1997	Sloane	600/300

[21] Appl. No.: 747,859

[22] Filed: Nov. 13, 1996

[51] Int. Cl.⁶ A61B 5/02

[52] U.S. Cl. 600/300; 128/903

[58] Field of Search 600/300, 368, 600/371, 324, 450, 451, 481, 485, 508, 509, 544, 545, 529, 531, 533, 903

[56] **References Cited**

U.S. PATENT DOCUMENTS

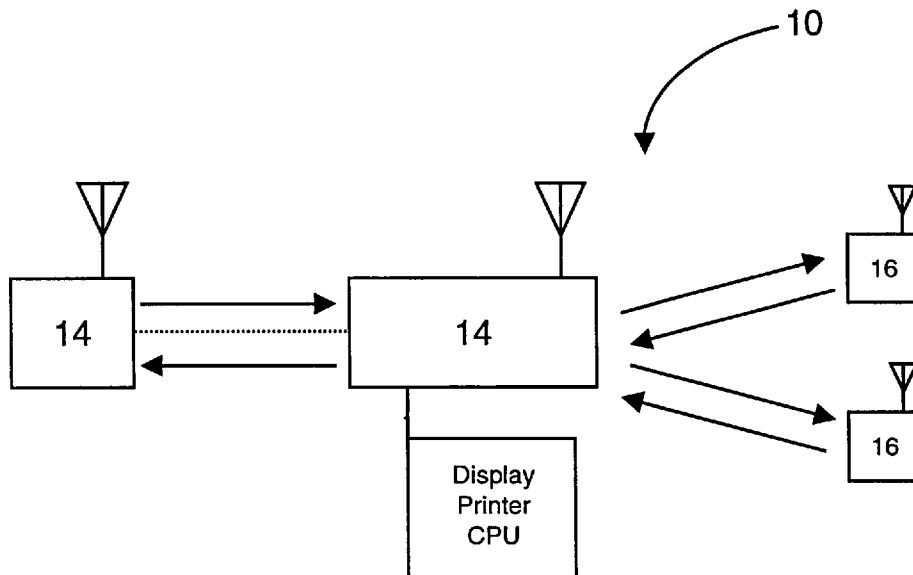
3,646,606	2/1972	Buxton et al. .
3,786,190	1/1974	Pori .
4,494,553	1/1985	Sciarra et al. .
4,517,982	5/1985	Shiga et al. .
4,556,063	12/1985	Thompson et al. .
4,883,057	11/1989	Broderick .
4,958,645	9/1990	Cadell et al. .

Primary Examiner—Robert L. Nasser
Attorney, Agent, or Firm—Reinhart, Boerner, Van Deuren, Norris & Rieselbach, s.c.

[57] **ABSTRACT**

The invention relates to a medical parameter monitoring device which allows the monitoring of a plurality of medical parameters from a remote location. The invention uses a central monitoring system which transmits and receives data parameters via RF from remote patient monitors. The monitoring system utilizes a digital spread spectrum RF transceiver between the central monitoring system to the remote monitors. Forward error correcting, frequency hopping, and spread spectrum communications are employed to provide accurate transmission of data for a plurality of physiological parameters. Transmitted data can be automatically registered into storage in the central monitoring system.

17 Claims, 5 Drawing Sheets



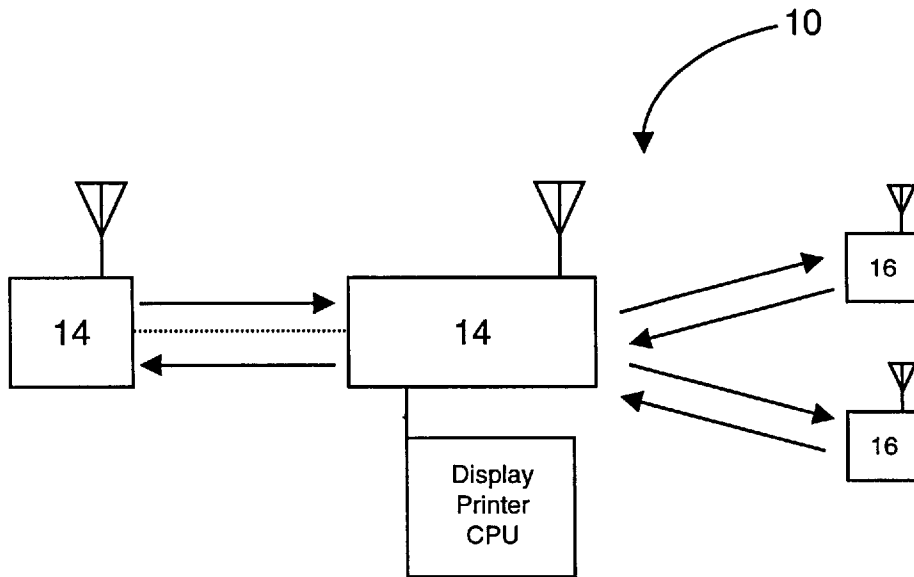


FIG. 1

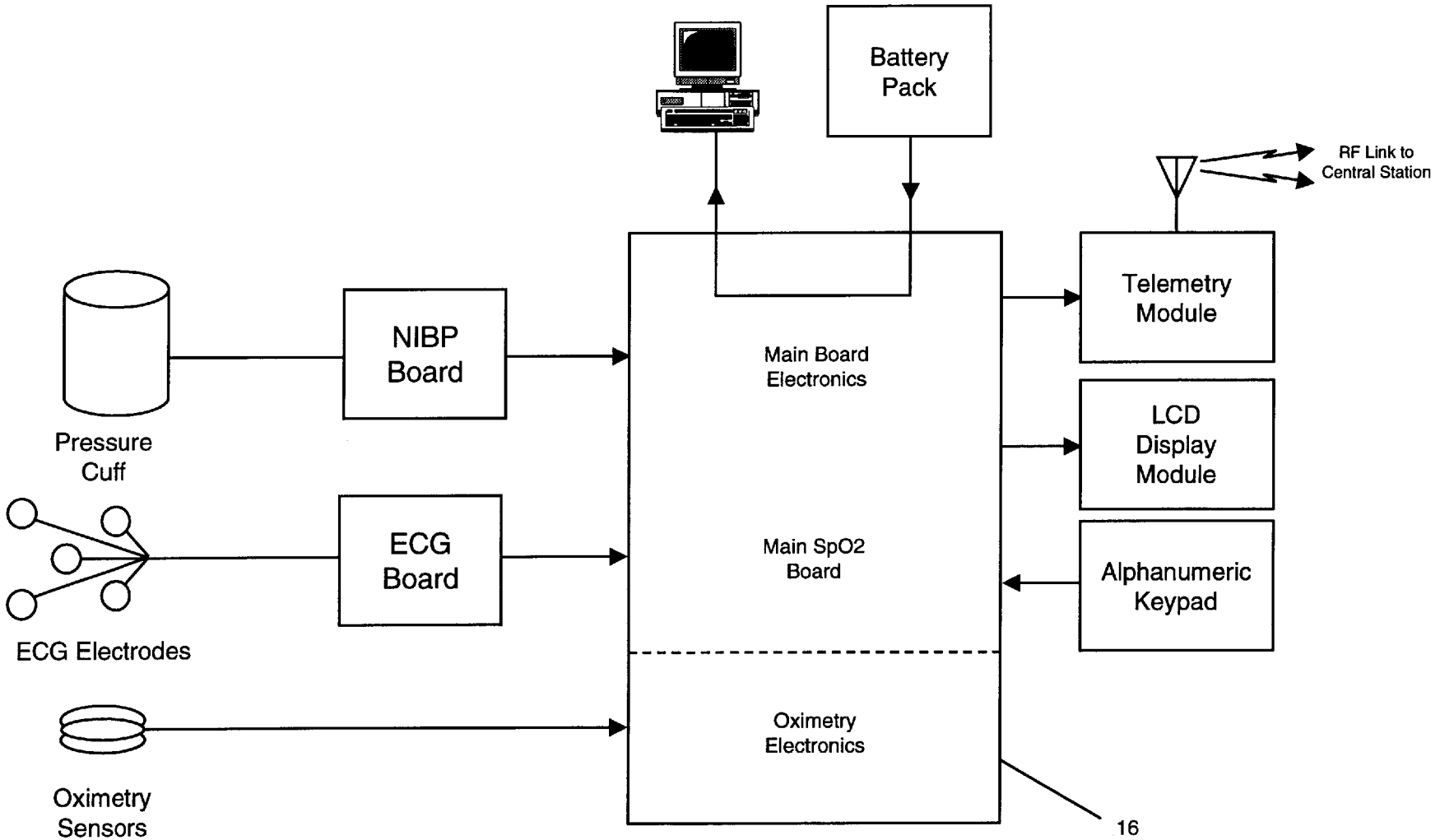


FIG. 2

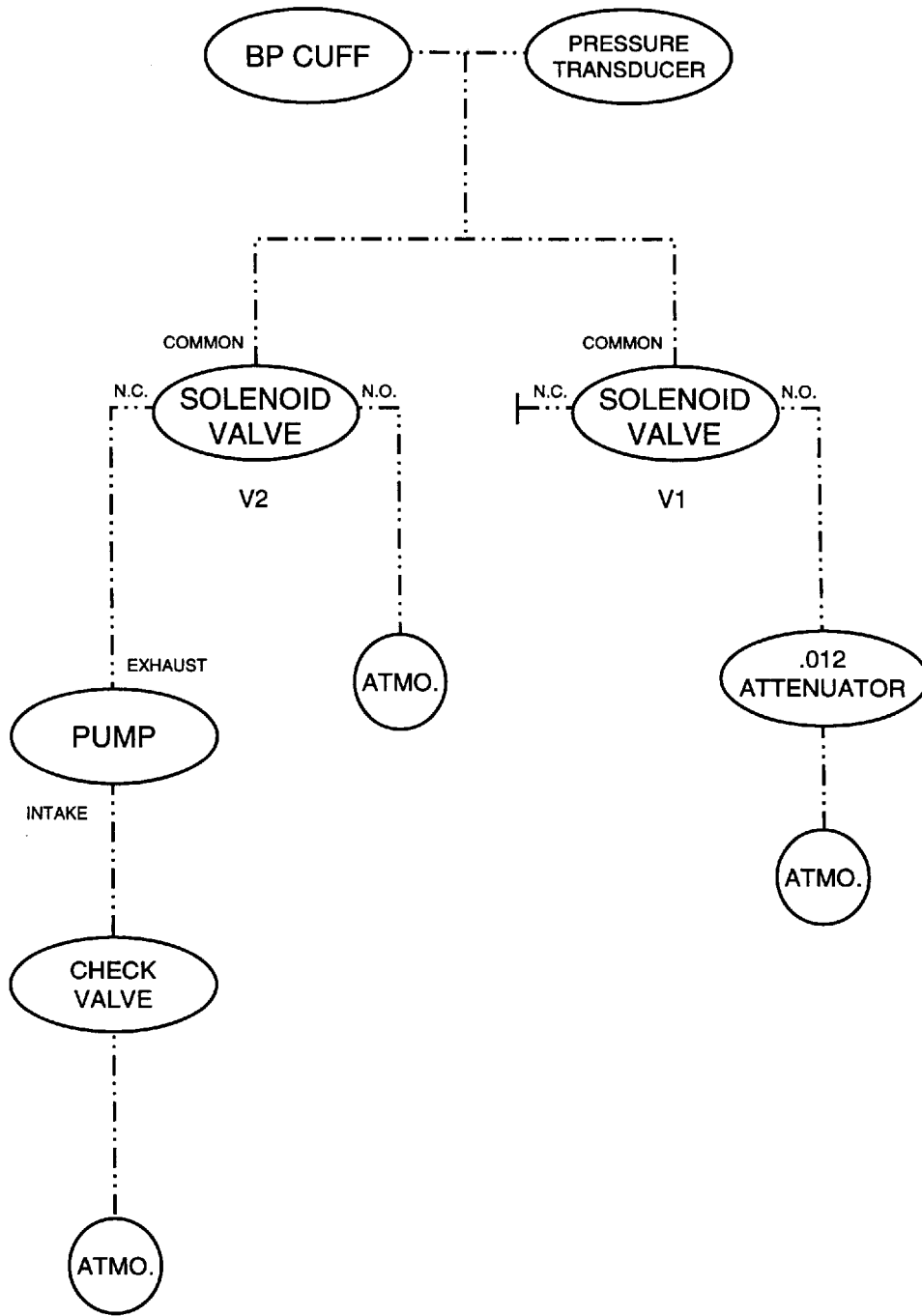


FIG. 3

Software Block Diagram

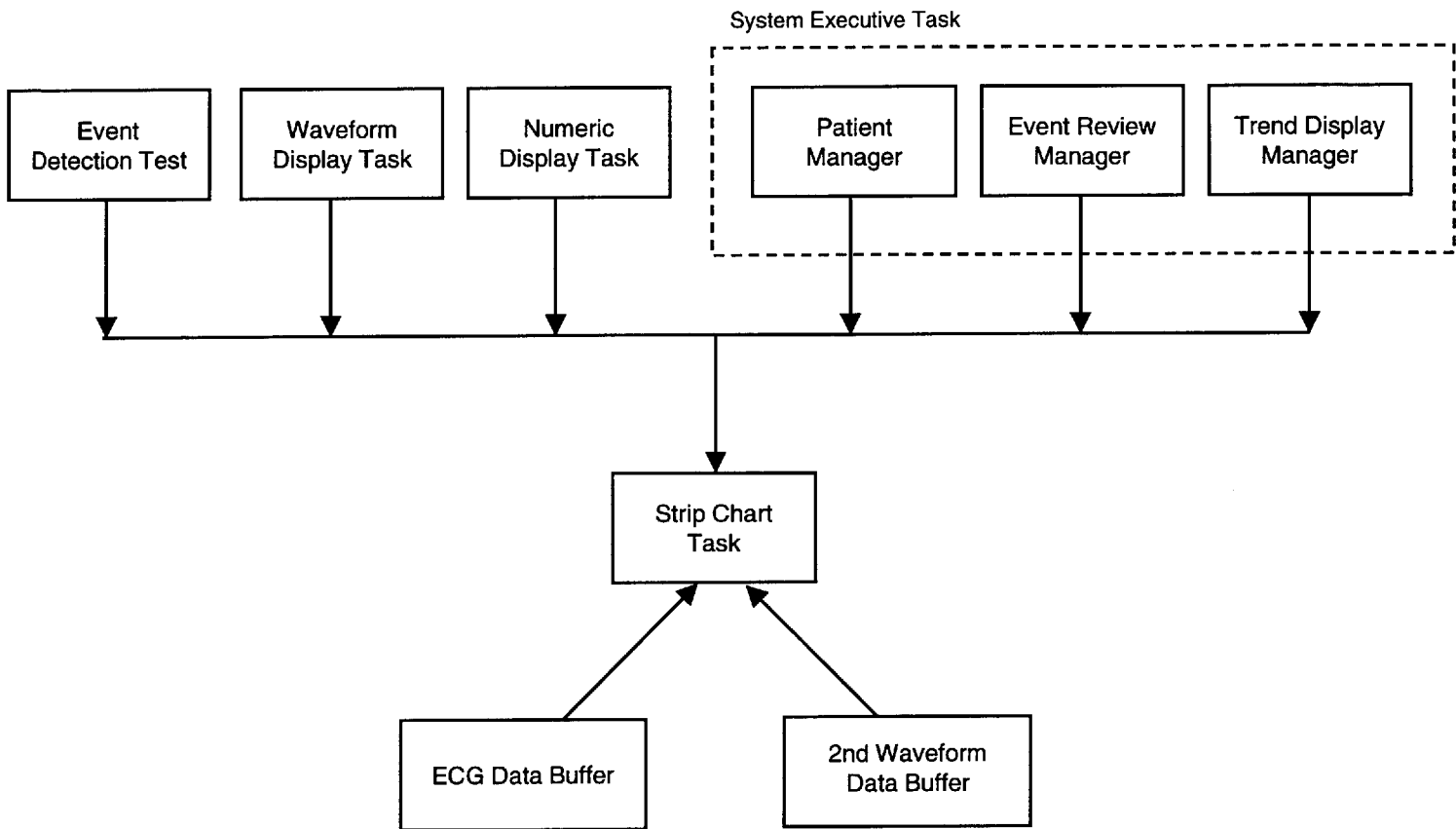


FIG. 4

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