

APPLICATION NO. 09/755173	CONT/PRIOR D	CLASS E04	SUBCLASS 222	ART UNIT 3768	EXAMINER W KKIM
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APPLICANTS

Patent Attorney
Robert Pizzano

375

26311

TITLE

System and methods for remote monitoring of devices for unauthorized mode and communicating over the same

PTO-2040
12/88

ISSUING CLASSIFICATION							
ORIGINAL				CROSS REFERENCE(S)			
CLASS		SUBCLASS		CLASS		SUBCLASS (ONE SUBCLASS PER BLOCK)	
375		222		375		224	
INTERNATIONAL CLASSIFICATION				370		241	
H04L		5/16					

Continued on Issue Slip Inside File Jacket

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FORWARDED TO 2

3-23-01

<input type="checkbox"/> TERMINAL DISCLAIMER	DRAWINGS			CLAIMS ALLOWED	
	Sheets Drwg.	Figs. Drwg.	Print Fig.	Total Claims	Print Claim for O.G.
	2	2	2	192	1
<input type="checkbox"/> The term of this patent subsequent to _____ (date) has been disclaimed. <input type="checkbox"/> The term of this patent shall not extend beyond the expiration date of U.S. Patent. No. _____	Kevin Kim 6/29/03 (Assistant Examiner) (Date)			NOTICE OF ALLOWANCE MAILED 7/1/03	
	STEPHEN CHIN 6/29/03 SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2800 (Primary Examiner) (Date)			ISSUE FEE W Amount Due 1600.00 Date Paid 7-16-03 7-16-03	
<input type="checkbox"/> The terminal _____ months of this patent have been disclaimed.	R. Mark 7.9.03 (Legal Instruments Examiner) (Date)			ISSUE BATCH NUMBER	

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ISSUE FEE IN FILE

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PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

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(5/87)

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** CONTINUING DATA *****
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and claims benefit of 60/174,865 01/07/2000

** FOREIGN APPLICATIONS *****

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
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TITLE
SYSTEMS AND METHODS FOR ESTABLISHING A DIAGNOSTIC TRANSMISSION MODE AND COMMUNICATING OVER THE SAME

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		1.16 Fees (Filing)
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		1.18 Fees (Issue)
		Other
		Credit

**SYSTEMS AND METHODS FOR ESTABLISHING A DIAGNOSTIC
TRANSMISSION MODE AND COMMUNICATING OVER THE SAME**

This application claims the benefit of the provisional applications Ser. Nos. 60/334, 303, filed Aug. 10, 2000, and 60/04, 203, filed Jun. 7, 2000.

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Field of the Invention

This invention relates to test and diagnostic information. In particular, this invention relates to a robust system and method for communicating diagnostic information.

Background of the Invention

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The exchange of diagnostic and test information between transceivers in a telecommunications environment is an important part of a telecommunications, such as an ADSL, deployment. In cases where the transceiver connection is not performing as expected, for example, where the data rate is low, where there are many bit errors, or the like, it is necessary to collect diagnostic and test information from the remote transceiver. This is performed by dispatching a technician to the remote site, e.g., a truck roll, which is time consuming and expensive.

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In DSL technology, communications over a local subscriber loop between a central office and a subscriber premises is accomplished by modulating the data to be transmitted onto a multiplicity of discrete frequency carriers which are summed together and then transmitted over the subscriber loop. Individually, the carriers form discrete, non-overlapping communication subchannels of limited bandwidth. Collectively, the carriers form what is effectively a broadband communications channel. At the receiver end, the carriers are demodulated and the data recovered.

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DSL systems experience disturbances from other data services on adjacent phone lines, such as, for example, ADSL, HDSL, ISDN, T1, or the like. These disturbances may commence after the subject ADSL service is already initiated and, since DSL for internet access is envisioned as an always-on service, the effect of these disturbances must be ameliorated by the subject ADSL transceiver.

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SUMMARY OF THE INVENTION

The systems and methods of this invention are directed toward reliably exchanging diagnostic and test information between transceivers over a digital subscriber line in the presence of voice communications and/or other disturbances. For simplicity of reference, the

NVA165661.1

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