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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR NETWORK MANAGEMENT USING PERCEIVED SIGNAL TO NOISE AND INTERFERENCE INDICATOR

| DATA RATE (Mbits/s) | MODE | FEC RATE | PPDU LENGTH (bytes) | FER | PSNI |
|------------------------|--------|----------|------------------------|-------------|------------|
| 1 | DSSS | no FEC | 125 | 10% +/-0.2% | 24 +/- 10 |
| 2 | DSSS | no FEC | 1250 | 10% +/-0.2% | 49 +/- 10 |
| 5.5 | HRDSSS | no FEC | 1250 | 10% +/-0.2% | 76 +/- 10 |
| 5.5 | HRDSSS | 1/2 | 1250 | 10% +/-0.2% | 44 +/- 10 |
| 6 | OFDM | 1/2 | 1250 | 10% +/-0.2% | 46 +/- 10 |
| 9 | OFDM | 3/4 | 1250 | 10% +/-0.2% | 62 +/- 10 |
| 11 | HRDSSS | no FEC | 1250 | 10% +/-0.2% | 94 +/- 10 |
| 11 | HRDSSS | 1/2 | 1250 | 10% +/-0.2% | 62 +/- 10 |
| 12 | OFDM | 1/2 | 1250 | 10% +/-0.2% | 64 +/- 10 |
| 18 | OFDM | 3/4 | 1250 | 10% +/-0.2% | 80 +/- 10 |
| 24 | OFDM | 1/2 | 1250 | 10% +/-0.2% | 106 +/- 10 |
| 36 | OFDM | 3/4 | 1250 | 10% +/-0.2% | 122 +/- 10 |
| 48 | OFDM | 2/3 | 1250 | 10% +/-0.2% | 155 +/- 10 |
| 54 | OFDM | 3/4 | 1250 | 10% +/-0.2% | 160 +/- 10 |

(57) Abstract: Method and apparatus of network management using a perceived indicator to provide physical layer measurements in a multitude of stations in the network, either by way of radio frequency power, or observed signal to noise plus interference (PSNI) from each access point, to report the measurements, to collect the measurements, and using the reported PSNI values as a signal quality indicator of delivered bit error rate or frame error rate (FER) to evaluate, reconfigure, and manage multiple stations in order to optimize the network or network performance.

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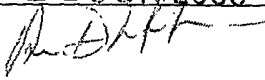
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| <p>A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : H04B 17/00, 15/00, 1/00 US CL : 455/62, 63.1, 67.11, 67.13, 226.1-226.4, 283, 296; 375/225-228 According to International Patent Classification (IPC) or to both national classification and IPC</p> | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|--|--|---|--|---|--|--|---|--|-------|---|--|--------|---|---|-------|
| <p>B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 455/62, 63.1, 67.11, 67.13, 226.1-226.4, 283, 296; 375/225-228</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) US-PGPUB, USPAT, EPO, JPO, DERWENT</p> | | | | | | | | | | | | | | | | | | | |
| <p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X --- Y</td> <td>US 6,298,242 B1 (SCHIFF) 2 October 2001, figs. 4a-b, 5, column 6 lines 43-52, column 9 line 57 to column 10 line 65, column 13 line 37, column 16 line 43 to column 17 line 25.</td> <td>1-5, 8, 10-18, 20-25, 27-30, 32-35, 37-43</td> </tr> <tr> <td>Y</td> <td>US 2002/0151290 A1 (CHEN) 17 October 2002, paragraphs 13, 43, 53</td> <td>6-7, 9, 19, 26, 31, 36 6</td> </tr> <tr> <td>Y</td> <td>US 2002/0102944 A1 (HAIM) 01 August 2002, figs. 7-8.</td> <td>9, 26</td> </tr> <tr> <td>Y</td> <td>US 6,201,954 B1 (SOLIMAN) 13 March 2001, column 5 lines 1-12</td> <td>19, 31</td> </tr> <tr> <td>Y</td> <td>US 2002/0174242 A1 (HINDIE et al.) 21 November 2002, paragraph 139.</td> <td>7, 36</td> </tr> </tbody> </table> | | Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. | X --- Y | US 6,298,242 B1 (SCHIFF) 2 October 2001, figs. 4a-b, 5, column 6 lines 43-52, column 9 line 57 to column 10 line 65, column 13 line 37, column 16 line 43 to column 17 line 25. | 1-5, 8, 10-18, 20-25, 27-30, 32-35, 37-43 | Y | US 2002/0151290 A1 (CHEN) 17 October 2002, paragraphs 13, 43, 53 | 6-7, 9, 19, 26, 31, 36 6 | Y | US 2002/0102944 A1 (HAIM) 01 August 2002, figs. 7-8. | 9, 26 | Y | US 6,201,954 B1 (SOLIMAN) 13 March 2001, column 5 lines 1-12 | 19, 31 | Y | US 2002/0174242 A1 (HINDIE et al.) 21 November 2002, paragraph 139. | 7, 36 |
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| <p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230</p> | <p>Authorized officer Simon Nguyen  Telephone No. 571-272-7894</p> | | | | | | | | | | | | | | | | | | |