



US00D987459S

(12) **United States Design Patent** (10) **Patent No.:** **US D987,459 S**  
**Sato et al.** (45) **Date of Patent:** **\*\* May 30, 2023**

(54) **SPECTRUM ANALYZER**  
(71) Applicants: **Yokogawa Electric Corporation,**  
Tokyo (JP); **Yokogawa Test &**  
**Measurement Corporation,** Tokyo (JP)  
(72) Inventors: **Daisuke Sato,** Hachioji (JP); **Gentarou**  
**Ishihara,** Hachioji (JP); **Ayako Kouno,**  
Musashino (JP)  
(\*\*) Term: **15 Years**  
(21) Appl. No.: **35/512,811**  
(22) Filed: **Apr. 26, 2021**  
(80) **Hague Agreement Data**  
Int. Filing Date: **Apr. 26, 2021**  
Int. Reg. No.: **DM/214179**  
Int. Reg. Date: **Apr. 26, 2021**  
Int. Reg. Pub. Date: **Oct. 29, 2021**

(51) **LOC (14) Cl.** ..... **10-05**  
(52) **U.S. Cl.**  
USPC ..... **D10/81**  
(58) **Field of Classification Search**  
USPC ..... D10/46, 47, 75, 76, 78, 81, 103  
CPC ..... G01R 23/16; G01J 3/28  
See application file for complete search history.

(56) **References Cited**  
U.S. PATENT DOCUMENTS  
D251,366 S \* 3/1979 Bathiany ..... D10/76  
4,244,024 A \* 1/1981 Marzalek ..... G01R 23/16  
324/76.23  
4,253,152 A \* 2/1981 Holdaway ..... G01R 23/16  
324/76.23  
4,257,104 A \* 3/1981 Martin ..... G01R 23/18  
324/76.23  
4,264,958 A \* 4/1981 Rowell, Jr. .... G01R 23/18  
324/76.23

4,350,953 A \* 9/1982 Best ..... G04F 10/04  
324/121 R  
D282,351 S \* 1/1986 Nord ..... D10/76  
4,578,640 A \* 3/1986 Crooke ..... G01R 13/20  
345/440.1  
4,695,833 A \* 9/1987 Ogura ..... G01R 13/20  
345/440.1  
4,972,138 A \* 11/1990 Bush ..... G01R 31/3177  
702/68  
5,177,560 A \* 1/1993 Stimple ..... G01J 3/28  
356/328  
D335,093 S \* 4/1993 Holmen ..... D10/76  
5,321,420 A \* 6/1994 Rezek ..... G01R 1/025  
345/440.1  
5,396,444 A \* 3/1995 Cannon ..... G01R 23/16  
708/145  
D367,821 S \* 3/1996 Fischer ..... D10/46  
D377,319 S \* 1/1997 Amano ..... D10/76  
6,195,617 B1 \* 2/2001 Miller ..... G01R 23/16  
702/68  
D460,371 S \* 7/2002 Wisley ..... D10/78  
D460,703 S \* 7/2002 Wisley ..... D10/78  
6,437,552 B1 \* 8/2002 Sekel ..... G01R 1/06788  
324/121 R

(Continued)

*Primary Examiner* — George D. Kirschbaum  
*Assistant Examiner* — Lillian Windham

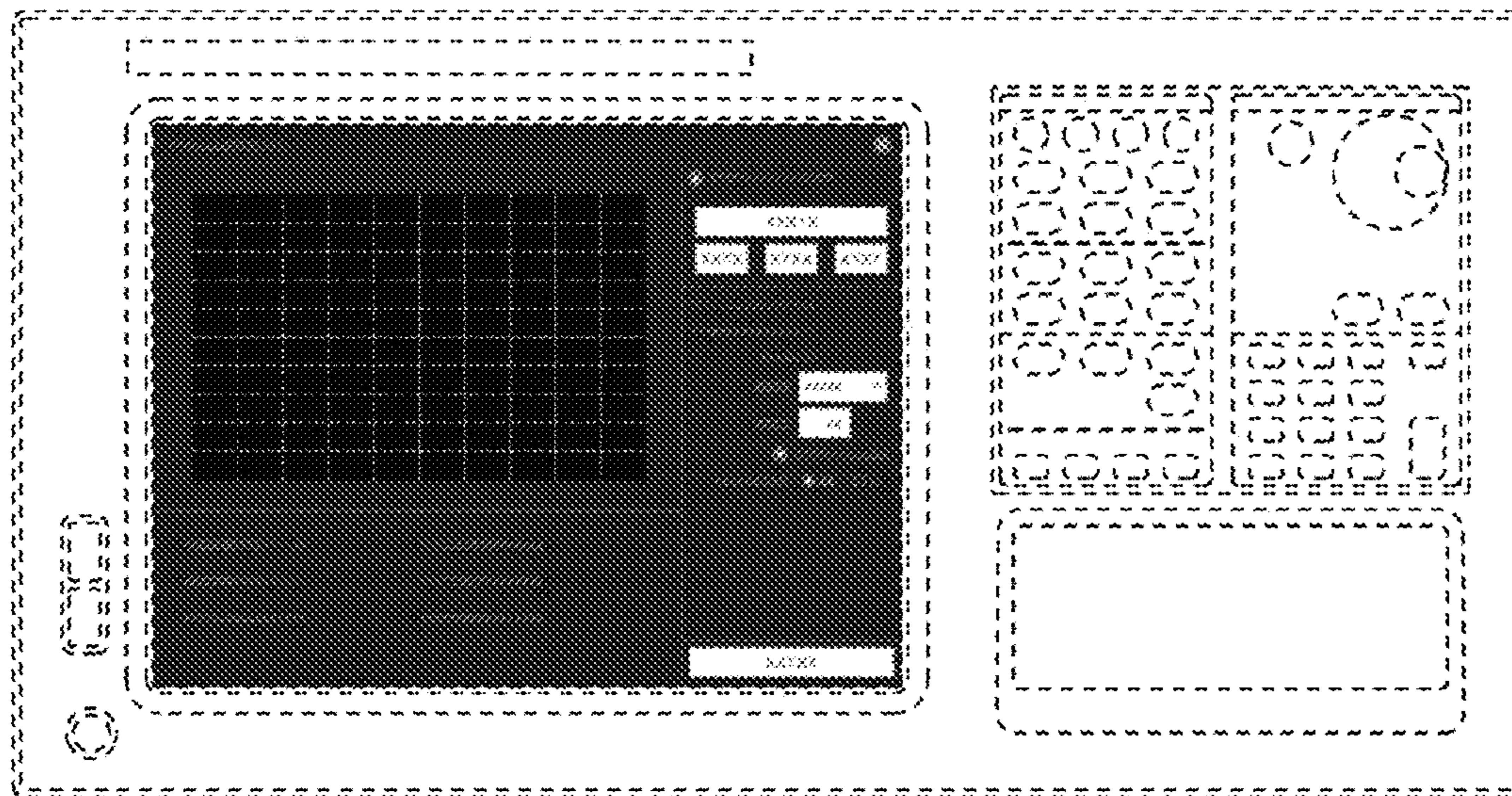
(57) **CLAIM**

The ornamental design for a spectrum analyzer, as shown and described.

**DESCRIPTION**

1. Spectrum analyzer  
1.1 : Front  
1.2 : Right  
1.3 : Top  
The broken lines, other than those indicated in the grid area, do not form part of the claimed design; the left view is omitted because it is a mirror image of the right view; the bottom view and the back view are omitted because they do not include any of the claimed areas.

**1 Claim, 3 Drawing Sheets**



(56)

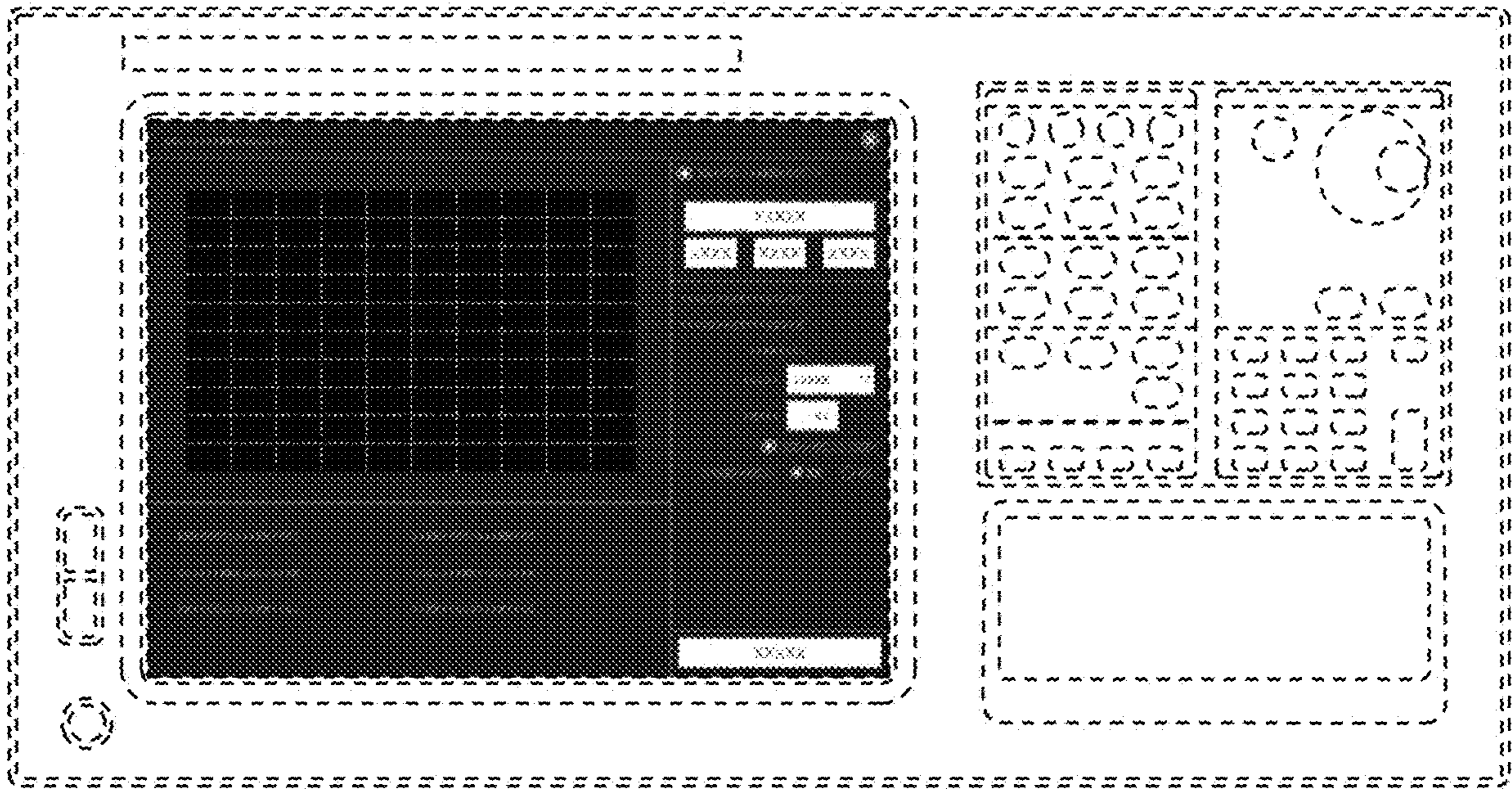
**References Cited**

## U.S. PATENT DOCUMENTS

6,774,890 B2 \* 8/2004 Engholm ..... G06F 3/0488  
 345/173  
 D499,658 S \* 12/2004 Wisley ..... D10/76  
 D501,414 S \* 2/2005 Graef ..... D10/76  
 D504,078 S \* 4/2005 Graef ..... D10/76  
 D504,079 S \* 4/2005 Wisley ..... D10/76  
 D504,080 S \* 4/2005 Wisley ..... D10/76  
 D504,341 S \* 4/2005 Graef ..... D10/76  
 D514,004 S \* 1/2006 Wisley ..... D10/76  
 D556,066 S \* 11/2007 Hoang ..... D10/76  
 7,459,898 B1 \* 12/2008 Woodings ..... G01R 23/16  
 370/254  
 D663,636 S \* 7/2012 Dobyms ..... D10/103  
 D820,127 S \* 6/2018 Kreitzer ..... D10/76  
 D820,129 S \* 6/2018 Kreitzer ..... D10/103  
 D845,797 S \* 4/2019 Ruoss ..... D10/75  
 D955,246 S \* 6/2022 Carney ..... D10/81  
 2003/0219086 A1 \* 11/2003 LeCheminant ..... H04L 1/205  
 375/355  
 2004/0095381 A1 \* 5/2004 McDowell ..... G01R 13/029  
 715/740  
 2004/0164984 A1 \* 8/2004 Pickerd ..... G01R 13/029  
 345/440  
 2004/0167727 A1 \* 8/2004 Pickerd ..... G01R 13/029  
 702/57  
 2007/0027675 A1 \* 2/2007 Hertz ..... G01R 23/16  
 704/200.1  
 2008/0231256 A1 \* 9/2008 Cox ..... G01R 1/025  
 324/121 R  
 2013/0006570 A1 \* 1/2013 Kaplan ..... G01R 1/06788  
 702/125  
 2019/0162764 A1 \* 5/2019 Barsumian ..... G01R 23/163  
 2021/0325437 A1 \* 10/2021 Jones ..... G01R 23/18

\* cited by examiner

1.1





1.3

