

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 49

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte KIYOSHI TSUJI, AKINOBU UCHIKUBO, KENJI KIMURA,  
MASAHITO GOTO and TSUTOMU HIRAI

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Appeal No. 2001-0321  
Application No. 08/888,671

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HEARD: April 3, 2001

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Before FRANKFORT, McQUADE, and NASE, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Kiyoshi Tsuji et al. appeal from the final rejection (Paper No. 35) of claims 64, 68, 70 and 71, all of the claims pending in the application.<sup>1</sup>

THE INVENTION

The invention relates to an electronic endoscope system which is defined in representative claim 64 as follows:

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<sup>1</sup> Claim 68 has been amended subsequent to final rejection.

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64. An electronic endoscope system comprising:

an electronic endoscope including an elongated intubation unit, an objective optical system for forming an optical image of

a subject illuminated by illumination light emitted from a distal end side of said intubation unit, and an imaging element for photoelectrically converting an optical image based on said objective optical system;

a signal transmitting cable connected to said imaging element, said signal transmitting cable having a portion covering transmission lines;

a signal processor connected through said signal transmitting cable for processing signals for said imaging element;

a connecting part connecting said signal processor and said signal transmitting cable;

a metal cylinder covering said connecting part; and

an electromagnetic energy absorbing and attenuating means consisting of a ring-shaped ferrite core for absorbing electromagnetic waves, said signal transmitting cable passing through said electromagnetic energy absorbing and attenuating means,

wherein said electromagnetic energy absorbing and attenuating means is arranged at an end portion of said portion of said signal transmitting cable near an electrical contact point of said connecting part and a small distance away and apart from said metal cylinder along said signal transmitting cable.

#### THE PRIOR ART

The references relied on by the examiner as evidence of



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As acknowledged by the examiner, the EDN reference "was not relied upon *per se* in the ground of rejection, but was made of record and used to support what the Examiner believes [is] common knowledge in the art" (answer, pages 5 and 6, n.2). The examiner further explains that "[s]uch knowledge, which was relied upon from the beginning of prosecution . . . and is pertinent to the Examiner's rejection, pertains to *the high susceptibility of EMI in a cable-to-connector interface and a connector-to-connector interface*. When questioned by Appellant[s] to provide evidence to this fact, the Examiner provided the EDN reference" (answer, page 8).

The examiner's explanation of the rejection (see pages 5 through 10 in the answer) and response to the appellants' argument (see pages 10 through 14 in the answer) confirm that the EDN reference is an integral part of the examiner's evidentiary showing. Nonetheless, the examiner has chosen not to include this reference in the statement of the rejection. Where a reference is relied on to support a rejection, whether or not in a minor capacity, there is no excuse for not positively including the reference in the statement of the

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rejection. See In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970). It is also noted that the publication date of the EDN reference (January 20, 1994) is well subsequent to the effective filing date to which the instant application appears on the record to be entitled,<sup>3</sup> which would make the reference meaningless in terms of demonstrating common knowledge in the art at the time the appellants' invention was made. Given these circumstances, we have not considered the EDN reference in evaluating the propriety of the examiner's conclusion of obviousness.

## II. The combined teachings of Nakajima and the Fair-Rite reference

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<sup>3</sup> On its face, the record indicates that the instant application (1) is a continuation of Application 08/570,936, filed December 12, 1995, now abandoned, which is a division of Application 08/026,203, filed March 2, 1993, now U.S. Patent No. 5,543,831, granted August 6, 1996, which is a continuation of Application 07/642,749, filed January 18, 1991, now abandoned, and (2) is derived, via its U.S. parent applications, from Japanese Application 315106, filed November 20, 1990.

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Nakajima discloses an electronic endoscope system comprising an electronic endoscope 2 including an elongated insertion portion 8, a light guide 11, an objective 16 and an image pickup device 17, a signal processing unit 5 including a video processor 6 connected to a monitor 7, a universal cord 3 joining the endoscope and the signal processing unit, and a signal cable 18 having a plurality of signal lines extending from the insertion portion of the endoscope, through the universal cord and to the signal processing unit. The signal cable communicates with the signal processing unit through connectors 21 and 22. Connector 21 includes contact pins 62a, 62b joined to the ends of signal lines 44, an inner shielding frame 61, an outer shielding frame 60, and a metallic shielding frame 64, these elements being operatively associated as shown in Figure 1.

It is not disputed that Nakajima responds to all of the limitations in independent claims 64 and 68 except for those calling for an electromagnetic energy absorbing and attenuating means consisting of a ring-shaped ferrite core. Both claims require this means to be arranged at an end portion of the signal transmitting cable near an electrical contact point of the connecting part and a small distance away

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and apart from the metal cylinder covering the connecting part. The Nakajima system has no such means.<sup>4</sup>

Fair-Rite discloses a cable and connector EMI suppressor kit having ring-shaped ferrite cores among its components.

In proposing to combine Nakajima and Fair-Rite to reject the appealed claims, the examiner concludes

that at the time the invention was made it would have been obvious to one of ordinary skill in the art to have provided a ring-shaped ferrite core, as taught by Fair-Rite, along the cable of Nakajima to reduce or prevent reception or leakage of EMI. In addition, since Fair-Rite does not specify a preferred location along the cable, the skilled artisan, faced with the decision of where along the cable to place the ferrite core, would naturally draw [sic] upon his/her own ordinary skill and knowledge readily available at the time, to place the ferrite core in the most beneficial location along the cable.

Nakajima recognizes the existence of EMI in the connector-to-connector interface . . . and provides a metallic shielding frame (60) to help reduce interference *at the point of connection*. However, no EMI protection is provided along the cable at the *cable-to-connector* interface. As would be recognized by the skilled artisan, the cable-to-connector interface of Nakajima . . . is a point that is *highly susceptible to EMI leakage and is not covered by the metallic shielding frame (60)*. Thus, use of a ring-shaped ferrite core along the cable would most obviously and advantageously be placed at

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<sup>4</sup> Counsel acknowledged at the oral hearing that the assertion on page 5 in the main brief that the Nakajima system includes a ferrite ring is mistaken.

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the cable-to-connector interface [answer, pages 8 and 9].

The examiner's position here rests on the proposition that Nakajima's cable-to-connector interface is susceptible to EMI leakage, and thus in want of a ring-shaped ferrite core of the sort disclosed by Fair-Rite, because it is not covered by shielding frame 60. To the extent that Nakajima's cable-to-connector interface extends beyond the shielding frame 60, however, it is encompassed by metallic shielding frame 64. Since frames 60 and 64 are joined together to completely surround the cable-to-connector interface, they ostensibly would function to prevent EMI leakage at this point, thus obviating any need for additional EMI shielding or attenuating means. In this light, it is evident that the only suggestion for combining Nakajima and Fair-Rite in the manner proposed by the examiner stems from impermissible hindsight knowledge derived from the appellants' disclosure.

Accordingly, we shall not sustain the standing 35 U.S.C. § 103(a) of claims 64 and 68, and of claims 70 and 71 which depend from claim 68, as being unpatentable over Nakajima in view of the Fair-Rite reference.

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SUMMARY

The decision of the examiner to reject claims 64, 68, 70  
and 71 is reversed.

REVERSED

CHARLES E. FRANKFORT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JOHN P. McQUADE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
JEFFREY V. NASE	)	
Administrative Patent Judge	)	

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APJ McQUADE

APJ NASE

APJ FRANKFORT

REVERSED

January 28, 2002  
Heard; 3 person conference