

# アンテナ歴史保存資料 詳細

登録番号 : 212

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## 1. 資料の名称、形式

(Japanese) : 八木・宇田アンテナ

(English) : Yagi-Uda Antenna

## 2. 製作(発明、発表)時期

(Japanese) : 1924

(English) : 1924

## 3. 所有者

(Japanese) : 世界中で広く使用されている

(English) : widely used around the world.

## 4. 開発者

(Japanese) : 八木秀次、宇田新太郎

(English) : Hidetsugu Yagi and Shintaro Uda

## 5. 保存場所

(Japanese) : 東北大学

(English) : Tohoku Univ.

## 6. 資料の歴史的重要性

(Japanese) :  
英文参照のこと

(English) :

In these laboratories, beginning in 1924, Professor Hidetsugu Yagi and his assistant, Shintaro Uda, designed and constructed a sensitive and highly-directional antenna using closely-coupled parasitic elements. The antenna, which is effective in the higher-frequency ranges, has been important for radar, television, and amateur radio.

The antenna system, utilizing a driven element with closely coupled parasitics (usually a reflector and one or more directors) for short-wave work, was first described by S. Uda, a professor at Tohoku University in Japan, in 1926, in the IEEJ (Japan). A colleague, Professor H. Yagi, collaborated in the developmental work and published the more widely read English version in the June 1928 IRE Proceedings. The antenna, often termed a Yagi, should have a credit to both inventors.

The invention came at a crucial time in the development of short-wave engineering when new tubes permitted higher frequency and more stable outputs. Applications such as amateur radio, point-to-point communication, VHF Radar and television receiving were natural outlets for the Yagi-Uda antenna system.

In the basic technical operation a driven element, usually  $\frac{1}{2} \lambda$  is connected to the transmitter through coax cable. In close proximity to the driver, but not physically connected to it is a reflector, usually more than  $\frac{1}{2} \lambda$  and one or more directors (usually less than  $\frac{1}{2} \lambda$  ). The E.M. wave interaction between the elements of the  $\lambda$

## 7. 主要性能

(Japanese) :  
高利得  
(English) :  
High gain

## 8. 関係論文・文献

(Japanese) :  
[http://www.ieeeeghn.org/wiki/index.php/Milestones:Directive\\_Short\\_Wave\\_Antenna,\\_1926](http://www.ieeeeghn.org/wiki/index.php/Milestones:Directive_Short_Wave_Antenna,_1926)  
(English) :  
[http://www.ieeeeghn.org/wiki/index.php/Milestones:Directive\\_Short\\_Wave\\_Antenna,\\_1926](http://www.ieeeeghn.org/wiki/index.php/Milestones:Directive_Short_Wave_Antenna,_1926)

## 9. 関係特許

(Japanese) :  
1926年 指向性アンテナ

(English) :  
1

## 写真 (構成図)



## キーワード

(Japanese) (English)

線状アンテナ

