PURPOSE
IFF Mark 10 Transponder with Selective Identification Feature (SIF) and interrogator Side Lobe Suppression (SLS) facility.

BRIEF DESCRIPTION
The transponder can be set to respond to any one of interrogation Modes 1, 2 and 3, either separately or together. Video from the receiver is processed by Pulse selection circuits which determine whether the received challenge is a valid main lobe interrogation. The mode of validated interrogation is decoded by logic circuits which, after a mode has been decoded, trigger the reply encoding which generates a SIF coded pulse train in accordance with manually set code switches. The reply code pulses modulate the transmitter.

FREQUENCY
1030 MHz Reception
1090 MHz Transmission

POWER OUTPUT
23 dBm to 26 dBm

PULSE REPETITION FREQUENCY
Depends upon the number of interrogations received. The reply rate can be set to a maximum of between 500 and 2000 replies per second; a reply can include from 2 to 14 pulses. The number of pulses transmitted is limited to 1% of the duty cycle.

PULSE DURATION
0.5 ± 0.05 μs

INTERMEDIATE FREQUENCY
60 MHz

RECEIVER BANDWIDTH
9 MHz

RECEIVER SENSITIVITY
76 dBm ± 4 dBm (1 mW = 0 dBm)

ASSOCIATED AERIAL OUTFIT
Outfits AN/AS or AN/AR

POWER REQUIREMENTS
115 V 60 Hz single phase equipment supply, 70 W
115 V 60 Hz single phase AC/CH supply, 12 W
24 V dc Illumination supply, 2½ W

MAJOR ASSEMBLIES
(a) 5959-99-525-0134 Transponder
(b) 5959-99-525-0135 Control Transponder (VC5 326)

RESTRICTED
**PHYSICAL DATA**

<table>
<thead>
<tr>
<th></th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Transponder including mountings</td>
<td>30.8 cm (12.1 in.)</td>
<td>31.6 cm (12.44 in.)</td>
<td>46.1 cm (18.2 in.)</td>
<td>11.95 Kg (26.34 lb)</td>
</tr>
<tr>
<td>(b) Control Transponder</td>
<td>15.25 cm (6 in.)</td>
<td>15.25 cm (6 in.)</td>
<td>15.25 cm (6 in.)</td>
<td>1.6 Kg (3.5 lb)</td>
</tr>
</tbody>
</table>

**HANDBOOKS**

- BR 4212 Handbook for Radar Type 1011
- BR 4210 IFF systems using Types 1010 and 1011

**ESTABLISHMENT LIST**

51673

**INSTALLATION SPECIFICATION**

51192