To connect a **MIPI DSI display** to the **i.MX8M Nano EVK (Evaluation Kit)**, follow these steps:

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1. Verify the Hardware Requirements

Before proceeding, ensure you have:

- **i.MX8M Nano EVK board**
- **MIPI DSI display module** (compatible with the i.MX8M Nano's MIPI DSI interface)
- **MIPI DSI connector** (typically a 30-pin FPC connector)
- **Power supply** for the display (some displays require external power)

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2. Identify the MIPI DSI Connector on the i.MX8M Nano EVK

- The **MIPI DSI interface** on the i.MX8M Nano EVK is exposed via a **30-pin FPC connector (J901)**.
- Check the board's **schematics and reference manual** to confirm pin assignments.

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3. Connect the Display

- Carefully insert the display's **flex cable** into the **MIPI DSI connector (J901)** on the EVK.
- Secure the connector's latch to ensure a stable connection.
- If required, connect an **external power source** (e.g., 5V or 3.3V) to the display.

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4. Enable MIPI DSI Support in the Device Tree

- Modify the **Device Tree (DTS) file** to enable the MIPI DSI interface.

Example Change in the Device Tree (imx8mn-evk.dts):

```
&ldb {
   status = "disabled";
};
```

```
&mipi_dsi {
    status = "okay";
    panel@0 {
        compatible = "your_panel_compatible_string";
        reg = <0>;
        backlight = <&backlight>;
        prepare-delay-ms = <10>;
        enable-delay-ms = <50>;
        reset-delay-ms = <120>;
        power-supply = <&reg_3p3v>;
    };
};
```

- Update the "compatible" field with the correct display driver name.

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5. Recompile and Flash the Updated Device Tree

- Recompile the **DTS** file into a **DTB**:
- dtc -I dts -O dtb -o imx8mn-evk.dtb imx8mn-evk.dts
- Copy the updated **DTB** to the boot partition:
- sudo cp imx8mn-evk.dtb /boot/dtbs/

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6. Update the Kernel and Enable MIPI DSI Driver

- Check if your Linux kernel supports **MIPI DSI panel drivers**.
- If needed, enable the **MIPI DSI panel driver** in the kernel (make menuconfig):
- Device Drivers → Graphics support → Display Panels → MIPI DSI panels
- Recompile the kernel and flash it to the board.

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7. Test the Display

After rebooting the board, check if the display is detected:

dmesg | grep mipi

If everything is configured correctly, the display should work.

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8. Troubleshooting

- If the display remains blank:
    - Check **power connections**.
    - Verify the **device tree settings**.
    - Run dmesg and check for **MIPI DSI errors**.
    - Try loading a test image:
    - cat /dev/urandom > /dev/fb0

Would you like help debugging any specific issue? 🚀