

## BMW Navigation, Audio and Video Information (By Javicas)

**Modulo A112** Navigation Computer. MKxx

Conectores: X1312 X1313 X13342

<b>X1312 (Violeta)</b>			
PIN #	Funcion	PIN #	Función
1	Señal Marcha Atras	10	Sensor Velocidad
2		11	Sensor Velocidad (Secundario)
3	12V Acc	12	<b>GPS Signal TX</b>
4		13	<b>GPS Signal RTS</b>
5		14	<b>GPS Signal CTS</b>
6		15	<b>GPS Signal GND</b>
7	Navigation BUS	16	<b>GPS Signal RX</b>
8	GPS Data Link TX	17	GPS Data Link TX GND
9	GPS Data Link RX	18	GPS Data Link RX GND

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

<b>X1313 (Azul)</b>			
PIN #	Funcion	PIN #	Funcion
1	12V Dir	10	GND
2		11	GND
3	I-BUS	12	Video Control Signal (Monitor GND)
4	<b>RED From TV Tuner</b>	13	<b>BLUE From TV Tuner</b>
5	Video Blue OUT	14	Video Blue GND
6	Video Green OUT	15	Video Green GND (NAV RGB GND)
7	Video Red OUT	16	Video Red GND
8	<b>GREEN From TV Tuner</b>	17	<b>SYNC From TV Tuner</b>
9	Nav Audio Out +	18	Nav Audio Out -

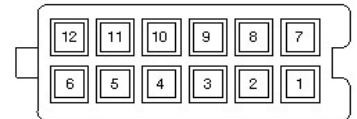
1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

<b>X13342</b>	
PIN #	Funcion
1	Ant GPS
2	Masa Ant GPS

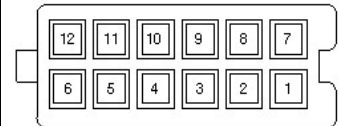
**Modulo A196** On Board Monitor. (Pantalla 16:9) RGB Sync on Green

Conectores: X18801 X18802

<b>X18801 (Azul)</b>			
<b>PIN #</b>	<b>Función</b>	<b>PIN #</b>	<b>Función</b>
1	58g Iluminación	7	12V Dir
2	GND	8	
3	Audio Left OUT	9	Audio Right GND
4	Audio Left GND	10	Audio Right OUT
5		11	12V Acc
6	I-BUS	12	Back Display Iluminación



<b>X18802 (Blanco)</b>			
<b>PIN #</b>	<b>Funcion</b>	<b>PIN #</b>	<b>Funcion</b>
1	Video Red In	7	Video Control Signal (Monitor GND)
2	Video Red GND	8	12V Dir
3	Video Blue In	9	
4	Video Blue GND	10	
5	Video Green In	11	
6	Video Green GND	12	Back Display Iluminación

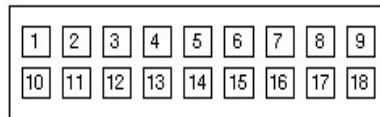


**Modulo A197** BMW TV Tuner

Conectores: X18804 X18806

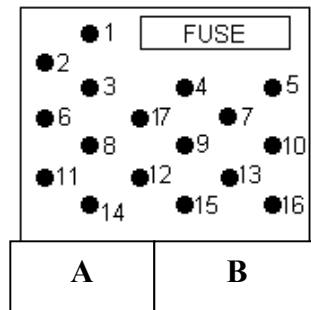
<b>X18804 (Azul)</b>			
<b>PIN #</b>	<b>Funcion</b>	<b>PIN #</b>	<b>Funcion</b>
1	12V Dir	10	GND
2	12V Dir	11	GND
3	I-Bus	12	Monitor GND (To 16:9)
4		13	
5	TV Video G Out (To 16:9)	14	TV Video G GND
6	TV Video B Out (To 16:9)	15	TV Video B GND
7	TV Video R Out (To 16:9)	16	TV Video R GND
8		17	REV Cam Switch (GND)
9	TV Audio Out + (To Radio)	18	TV Audio Out GND (To Radio)

<b>X18806 (Blanco)</b>			
<b>PIN #</b>	<b>Funcion</b>	<b>PIN #</b>	<b>Funcion</b>
1	Audio Out +	10	Audio Out GND
2	Video Out +	11	Video Out GND
3	Nav Audio In +	12	Nav Audio In -
4	AV Audio In +	13	Video In REV Cam
5	AV Audio In GND	14	Video In REV GND
6	AV Video In +	15	AV Video In GND
7	Nav RGB GND	16	Video Green Out Nav (To NAV Computer MK)
8	Signal Sync Nav	17	Video Blue Out Nav (To NAV Computer MK)
9	Signal Search	18	Video Red Out Nav (To NAV Computer MK)



## Audio

### Radios Old Generation 17 Pins



#### Conector 17 Pines X18126

PIN #	Funcion	PIN #	Funcion
1	Spk Front Left +	10	Speed Signal
2	Spk Front Right +	11	Spk Front Right -
3	Spk Rear Left +	12	Spk Rear Left -
4	Phone MUTE	13	12v Ilum (58g)
5	12V Acc	14	Spk rear Right -
6	Spk Rear Right +	15	GND
7	I-BUS	16	12V Ant Out
8	Spk Front Left -	17	-
9	12V Dir		

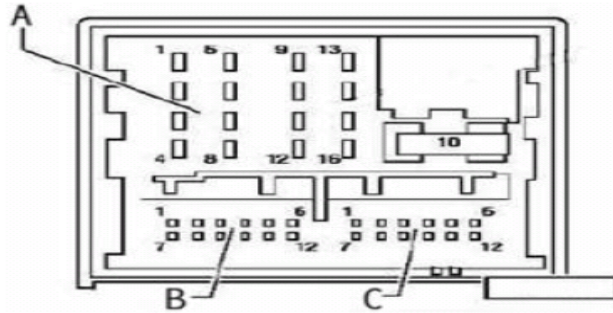
#### A Conector 10 Pines X01037

PIN #	Funcion	PIN #	Funcion
1	CD CHG GND	6	CD CHG Clock
2	CD CHG Rx	7	CD CHG Reset
3	CD CHG GND	8	CD CHG GND
4	CD Left In GND	9	CD Left Audio In +
5	CD Right In GND	10	CD Right Audio In +

#### B Conector 10 Pines X18805

PIN #	Funcion	PIN #	Funcion
1	Tape Right +	6	Tape Left +
2	Tape Right -	7	Tape Left -
3	NAV BUS	8	AUX Input Right +
4	AUX Input GND	9	AUX Input Left +
5	Audio Nav In -	10	Audio Nav In +

**Radios New Generation 40 Pins**



**(A) Conector 16 Pines X18126**

PIN #	Funcion	PIN #	Funcion
1	Spk Rear Right +	10	Phone MUTE
2	Spk Front Right +	11	Tel ON
3	Spk Front Left +	12	GND
4	Spk Rear Left +	13	12V Ant Out
5	Spk Rear Right -	14	12V Ilum (58g)
6	Spk Front Right -	15	12V Dir
7	Spk Front Left -	16	12V Acc
8	Spk Rear left -		

**(B) Conector 12 Pines X13598 o X13321**

PIN #	Funcion	PIN #	Funcion
1	Line OUT Left	7	Line OUT Right
2	CD CHG GND	8	CD CHG Audio Left In
3	Line OUT GND	9	CD CHG Audio Right In
4	VCR Audio Right In	10	Nav/TV Audio Right In
5	VCR Audio Left In	11	Nav/TV Audio Left In
6	VCR Audio GND	12	Nav/TV Audio In GND

**(C) Conector 12 Pines X13649**

PIN #	Funcion	PIN #	Funcion
1	Tape Left +	7	Tape Right +
2	Tape Left -	8	Tape Right -
3	AUX Input Left	9	NAV BUS
4	AUX Input Right	10	AUX Input GND
5	NAV/TV Audio +	11	NAV/TV Audio -
6	Phone Audio In +	12	Phone Audio In -