

# C181F / MJ001B Correlation Report

## General information

- Consists of only one subproject: MJ001B.
- Session info: <http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/>
- Station feedback: [http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr18/feedback\\_apr18.asc](http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr18/feedback_apr18.asc)
- GBT calibration info (Tsys files for download) and other related information for this session can be found here: <https://safe.nrao.edu/wiki/bin/view/GB/Observing/WbandVLBACal/C181>
- *Special processing* was applied to all data in order to correlate mismatching frequency setups of ALMA and other GMVA stations. See details [here](#).

## Current Status

Correlation finished, data **released** on 10/12/2018.

A **second** data release, with a problem, spotted in the original release, corrected, was made on 31/01/2019.

A **third** data release, rerunning PolConvert with the latest (25.06.2019) ALMA QA2 release, was made on 16/09/2019.

## Fringes

Station	Code	Fringes	Plots	Comments
VLBA: Br	b	yes	<p>Fringe overview of all baselines of this antenna in LL (left for each baseline) and RR (right for each baseline). Legend: white - scheduled, but no data, blue - no fringe, red-green - fringes of different quality.</p> <p><a href="#">c181f FRINGE RfAnt Br LLRR AllSrc.pdf</a></p> <p>Examples of fourfit fringe plots:</p> <p><a href="#">c181f No0002 3C279 bp LL.pdf</a>, <a href="#">c181f No0002 3C279 bp LR.pdf</a>,  <a href="#">c181f No0002 3C279 bp RL.pdf</a>, <a href="#">c181f No0002 3C279 bp RR.pdf</a></p> <p><a href="#">c181f No0042 1921-293 Ab LL.pdf</a>, <a href="#">c181f No0042 1921-293 Ab LR.pdf</a>,  <a href="#">c181f No0042 1921-293 Ab RL.pdf</a>, <a href="#">c181f No0042 1921-293 Ab RR.pdf</a></p> <p>Same for all antennas below unless otherwise noted.</p>	
VLBA: Fd	f	yes	<p><a href="#">c181f FRINGE RfAnt Fd LLRR AllSrc.pdf</a></p> <p><a href="#">c181f No0002 3C279 fp LL.pdf</a>, <a href="#">c181f No0002 3C279 fp LR.pdf</a>,  <a href="#">c181f No0002 3C279 fp RL.pdf</a>, <a href="#">c181f No0002 3C279 fp RR.pdf</a></p> <p><a href="#">c181f No0042 1921-293 Af LL.pdf</a>, <a href="#">c181f No0042 1921-293 Af LR.pdf</a>,  <a href="#">c181f No0042 1921-293 Af RL.pdf</a>, <a href="#">c181f No0042 1921-293 Af RR.pdf</a></p>	
VLBA: Kp	k	yes	<p><a href="#">c181f FRINGE RfAnt Kp LLRR AllSrc.pdf</a></p>	

Station	Code	Fringes	Plots	Comments
			<a href="#">c181f No0042 1921-293 Ak LL.pdf</a> , <a href="#">c181f No0042 1921-293 Ak LR.pdf</a> , <a href="#">c181f No0042 1921-293 Ak RL.pdf</a> , <a href="#">c181f No0042 1921-293 Ak RR.pdf</a>	
VLBA: La	l	yes	<a href="#">c181f FRINGE RfAnt La LLRR AllSrc.pdf</a>  <a href="#">c181f No0002 3C279 lp LL.pdf</a> , <a href="#">c181f No0002 3C279 lp LR.pdf</a> , <a href="#">c181f No0002 3C279 lp RL.pdf</a> , <a href="#">c181f No0002 3C279 lp RR.pdf</a>  <a href="#">c181f No0042 1921-293 Al LL.pdf</a> , <a href="#">c181f No0042 1921-293 Al LR.pdf</a> , <a href="#">c181f No0042 1921-293 Al RL.pdf</a> , <a href="#">c181f No0042 1921-293 Al RR.pdf</a>	
VLBA: Mk	m	yes	<a href="#">c181f FRINGE RfAnt Mk LLRR AllSrc.pdf</a>  <a href="#">c181f No0002 3C279 mp LL.pdf</a> , <a href="#">c181f No0002 3C279 mp LR.pdf</a> , <a href="#">c181f No0002 3C279 mp RL.pdf</a> , <a href="#">c181f No0002 3C279 mp RR.pdf</a>  <a href="#">c181f No0042 1921-293 Am LL.pdf</a> , <a href="#">c181f No0042 1921-293 Am LR.pdf</a> , <a href="#">c181f No0042 1921-293 Am RL.pdf</a> , <a href="#">c181f No0042 1921-293 Am RR.pdf</a>	
VLBA: Nl	n	yes	<a href="#">c181f FRINGE RfAnt Nl LLRR AllSrc.pdf</a>  <a href="#">c181f No0002 3C279 np LL.pdf</a> , <a href="#">c181f No0002 3C279 np LR.pdf</a> , <a href="#">c181f No0002 3C279 np RL.pdf</a> , <a href="#">c181f No0002 3C279 np RR.pdf</a>  <a href="#">c181f No0042 1921-293 An LL.pdf</a> , <a href="#">c181f No0042 1921-293 An LR.pdf</a> , <a href="#">c181f No0042 1921-293 An RL.pdf</a> , <a href="#">c181f No0042 1921-293 An RR.pdf</a>	
VLBA: Ov	o	yes	<a href="#">c181f FRINGE RfAnt Ov LLRR AllSrc.pdf</a>  <a href="#">c181f No0002 3C279 op LL.pdf</a> , <a href="#">c181f No0002 3C279 op LR.pdf</a> , <a href="#">c181f No0002 3C279 op RL.pdf</a> , <a href="#">c181f No0002 3C279 op RR.pdf</a>  <a href="#">c181f No0042 1921-293 Ao LL.pdf</a> , <a href="#">c181f No0042 1921-293 Ao LR.pdf</a> , <a href="#">c181f No0042 1921-293 Ao RL.pdf</a> , <a href="#">c181f No0042 1921-293 Ao RR.pdf</a>	
VLBA: Pt	p	yes	<a href="#">c181f FRINGE RfAnt Pt LLRR AllSrc.pdf</a>  <a href="#">c181f No0042 1921-293 Ap LL.pdf</a> , <a href="#">c181f No0042 1921-293 Ap LR.pdf</a> , <a href="#">c181f No0042 1921-293 Ap RL.pdf</a> , <a href="#">c181f No0042 1921-293 Ap RR.pdf</a>  <a href="#">c181f No0002 3C279 bp LL.pdf</a> , <a href="#">c181f No0002 3C279 bp LR.pdf</a> , <a href="#">c181f No0002 3C279 bp RL.pdf</a> , <a href="#">c181f No0002 3C279 bp RR.pdf</a>  <a href="#">c181f No0002 3C279 fp LL.pdf</a> , <a href="#">c181f No0002 3C279 fp LR.pdf</a> , <a href="#">c181f No0002 3C279 fp RL.pdf</a> , <a href="#">c181f No0002 3C279 fp RR.pdf</a>	Taken out for several scans because of USNO observing.

Station	Code	Fringes	Plots	Comments
			<a href="#">c181f No0002 3C279 lp LL.pdf</a> , <a href="#">c181f No0002 3C279 lp LR.pdf</a> , <a href="#">c181f No0002 3C279 lp RL.pdf</a> , <a href="#">c181f No0002 3C279 lp RR.pdf</a>  <a href="#">c181f No0002 3C279 mp LL.pdf</a> , <a href="#">c181f No0002 3C279 mp LR.pdf</a> , <a href="#">c181f No0002 3C279 mp RL.pdf</a> , <a href="#">c181f No0002 3C279 mp RR.pdf</a>  <a href="#">c181f No0002 3C279 np LL.pdf</a> , <a href="#">c181f No0002 3C279 np LR.pdf</a> , <a href="#">c181f No0002 3C279 np RL.pdf</a> , <a href="#">c181f No0002 3C279 np RR.pdf</a>  <a href="#">c181f No0002 3C279 op LL.pdf</a> , <a href="#">c181f No0002 3C279 op LR.pdf</a> , <a href="#">c181f No0002 3C279 op RL.pdf</a> , <a href="#">c181f No0002 3C279 op RR.pdf</a>	
GBT: Gb	G	no	-----	unrecoverable read error of the Mk5 module, logs indicate bad weather, so this loss is considered non-critical
ALMA: Aa	A	yes	<p>In this case bright red indicates false fringes (detected as the ones having abnormally high single-band delay) that fourfit in this particular case finds for all baselines for which there is no true fringe as a result of a glitch.</p> <a href="#">c181f SBD RfAnt Aa LLRR AllSrc.pdf</a>  <a href="#">c181f No0002 3C279 Ap LL.pdf</a> , <a href="#">c181f No0002 3C279 Ap LR.pdf</a> , <a href="#">c181f No0002 3C279 Ap RL.pdf</a> , <a href="#">c181f No0002 3C279 Ap RR.pdf</a>  <a href="#">c181f No0042 1921-293 Ab LL.pdf</a> , <a href="#">c181f No0042 1921-293 Ab LR.pdf</a> , <a href="#">c181f No0042 1921-293 Ab RL.pdf</a> , <a href="#">c181f No0042 1921-293 Ab RR.pdf</a>  <a href="#">c181f No0042 1921-293 Af LL.pdf</a> , <a href="#">c181f No0042 1921-293 Af LR.pdf</a> , <a href="#">c181f No0042 1921-293 Af RL.pdf</a> , <a href="#">c181f No0042 1921-293 Af RR.pdf</a>  <a href="#">c181f No0042 1921-293 Ak LL.pdf</a> , <a href="#">c181f No0042 1921-293 Ak LR.pdf</a> , <a href="#">c181f No0042 1921-293 Ak RL.pdf</a> , <a href="#">c181f No0042 1921-293 Ak RR.pdf</a>  <a href="#">c181f No0042 1921-293 Al LL.pdf</a> , <a href="#">c181f No0042 1921-293 Al LR.pdf</a> , <a href="#">c181f No0042 1921-293 Al RL.pdf</a> , <a href="#">c181f No0042 1921-293 Al RR.pdf</a>  <a href="#">c181f No0042 1921-293 Am LL.pdf</a> , <a href="#">c181f No0042 1921-293 Am LR.pdf</a> , <a href="#">c181f No0042 1921-293 Am RL.pdf</a> , <a href="#">c181f No0042 1921-293 Am RR.pdf</a>  <a href="#">c181f No0042 1921-293 An LL.pdf</a> , <a href="#">c181f No0042 1921-293 An LR.pdf</a> , <a href="#">c181f No0042 1921-293 An RL.pdf</a> , <a href="#">c181f No0042 1921-293 An RR.pdf</a>  <a href="#">c181f No0042 1921-293 Ao LL.pdf</a> , <a href="#">c181f No0042 1921-293 Ao LR.pdf</a> , <a href="#">c181f No0042 1921-293 Ao RL.pdf</a> , <a href="#">c181f No0042 1921-293 Ao RR.pdf</a>	Observed in linear polarization, converted to circular polarization in post-correlation using PolConvert. For technical reasons the atmospheric correction was applied twice -- both in original ALMA data and during the correlation. Although a special procedure was developed to compensate for this, we found that its application leads to other difficulties, in particular to abnormally high fringe rate jumps, so in the final production run the double atmospheric correction was left as is.

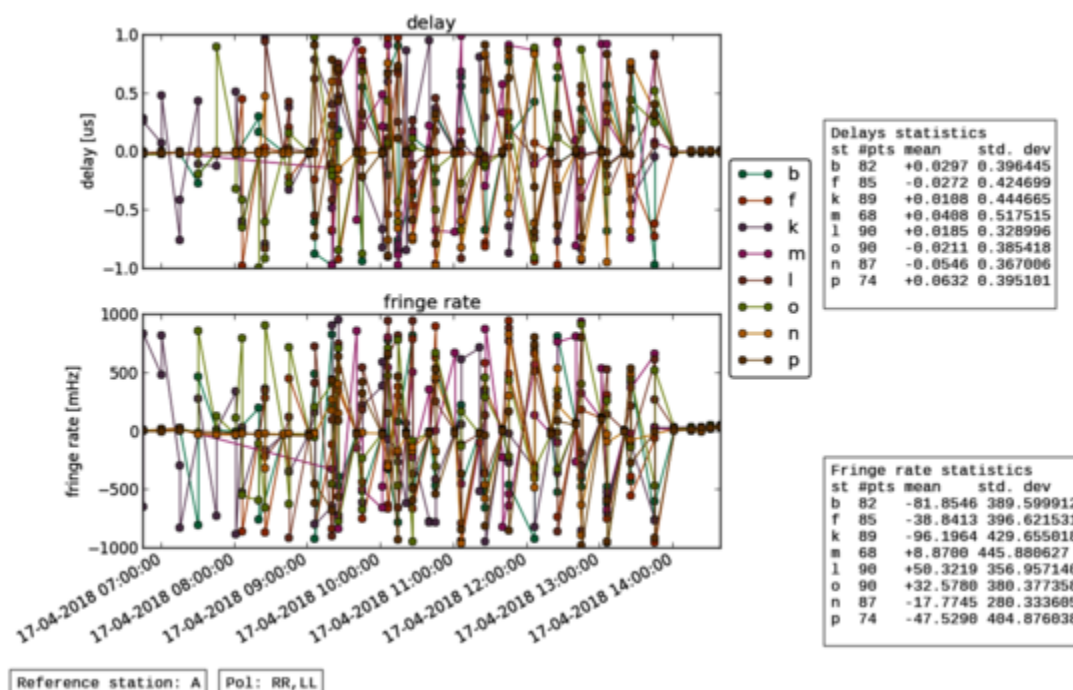
Station	Code	Fringes	Plots	Comments
			<a href="#">c181f No0042 1921-293 Ap_LL.pdf</a> , <a href="#">c181f No0042 1921-293 Ap_LR.pdf</a> , <a href="#">c181f No0042 1921-293 Ap_RL.pdf</a> , <a href="#">c181f No0042 1921-293 Ap_RR.pdf</a>	

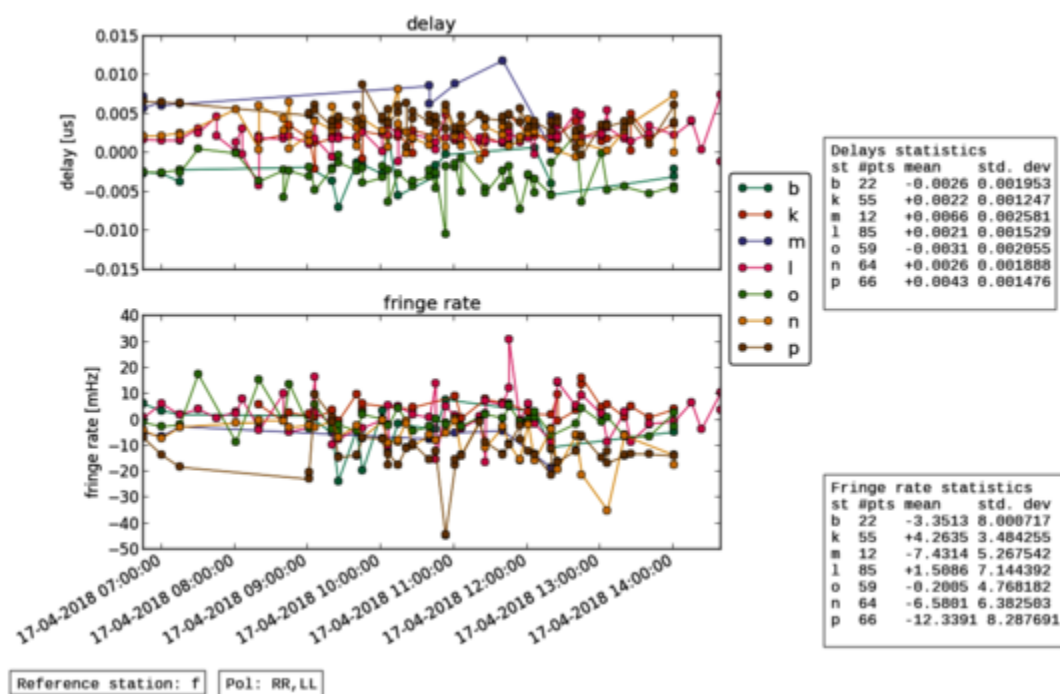
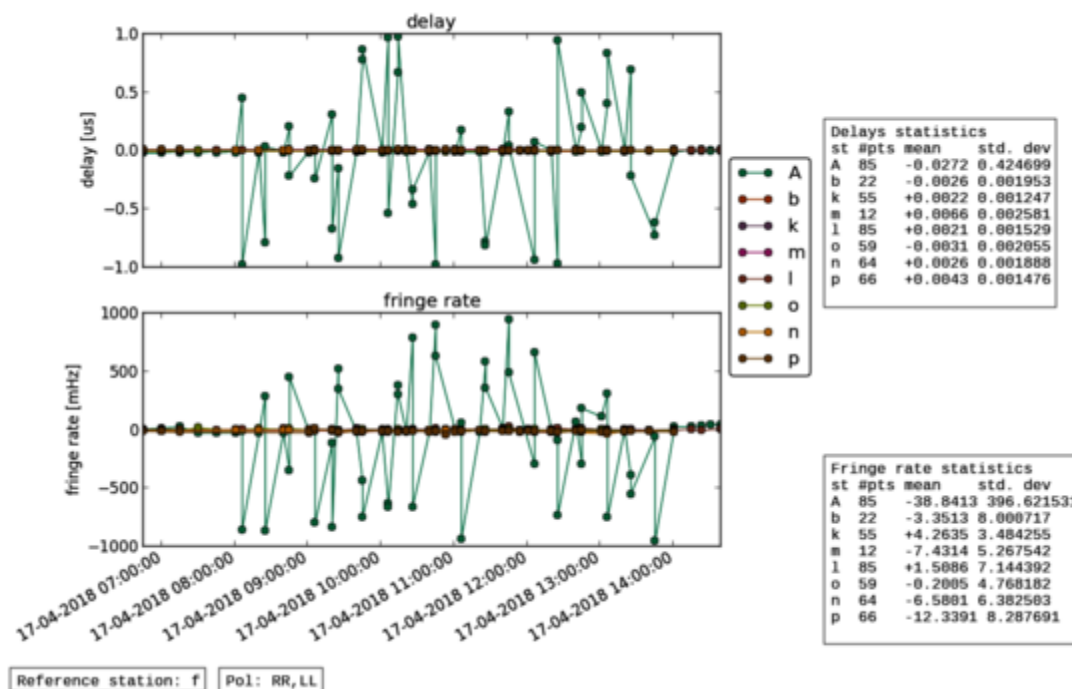
Notes

Post-Correlation checks

Residuals

Due to fourfit problems there are false fringes to ALMA that create outliers in the plots of residuals. The bottom plot has ALMA removed to show the residuals at normal scale.





FITS completeness (plist)

				AA	AA	NL	FD	PT	LA	OV	KP	BR	MK	GB
c181f_01D2D	No0001	3C279	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_02D2D	No0002	3C279	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_03D2D	No0003	3C279	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_04D2D	No0005	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x
c181f_05D2D	No0006	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x
c181f_06D2D	No0008	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x

c181f_07D2D	No0009	SGR_A	3mm_RDBE	o	o	o	o	x	o	o	o	.	.	x
c181f_08D2D	No0010	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x
c181f_09D2D	No0011	SGR_A	3mm_RDBE	o	o	o	o	x	o	o	o	.	.	x
c181f_10D2D	No0012	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x
c181f_11D2D	No0013	SGR_A	3mm_RDBE	o	o	o	o	x	o	o	o	.	.	x
c181f_12D2D	No0015	NRAO530	3mm_RDBE	o	o	o	o	77	o	o	o	o	.	x
c181f_13D2D	No0016	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	.	x
c181f_14D2D	No0017	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_15D2D	No0018	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_16D2D	No0019	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_17D2D	No0020	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_18D2D	No0022	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_19D2D	No0023	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_20D2D	No0024	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_21D2D	No0026	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	.	.	x
c181f_22D2D	No0027	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_23D2D	No0028	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_24D2D	No0029	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_25D2D	No0030	SGR_A	3mm_RDBE	.	.	o	o	o	o	o	o	o	o	.
c181f_26D2D	No0032	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_27D2D	No0033	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_28D2D	No0035	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_29D2D	No0036	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_30D2D	No0037	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_31D2D	No0038	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_32D2D	No0039	SGR_A	3mm_RDBE	.	.	o	o	o	o	o	o	o	o	x
c181f_33D2D	No0040	NRAO530	3mm_RDBE	x	x	o	o	o	o	o	o	o	o	.
c181f_34D2D	No0041	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_35D2D	No0042	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_36D2D	No0043	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_37D2D	No0044	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_38D2D	No0045	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_39D2D	No0046	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_40D2D	No0047	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_41D2D	No0048	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_42D2D	No0049	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_43D2D	No0050	NRAO530	3mm_RDBE	.	.	o	o	o	o	o	o	o	o	.
c181f_44D2D	No0051	SGR_A	3mm_RDBE	o	o	.	o	o	o	o	o	o	o	.
c181f_45D2D	No0052	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_46D2D	No0053	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_47D2D	No0054	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_48D2D	No0055	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_49D2D	No0056	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.